SEN-551CD/R5520

SERVICE MANUAL

Canadian Model
E Model
SEN-551CD

AEP Model
UK Model
SEN-R5520

This system is composed of following model.
As for the service manual, it is issued for each component model, then please refer to it.

COMPONENT MODEL NAME FOR THIS SYSTEM

	SEN-551CD	SEN-R5520
AMPLIFIER, TUNER TAPE DECK, CD	HCD-551	HCD-551
SPEAKER SYSTEM	SS-CR64 (SS-CN64) (SS-U64) (Canadian model) SS-CR10 (SS-CN10) (SS-U10) (E, Mexican, Singapore model)	SS-CR10 (SS-CN10) (SS-U10) (AEP, UK, German model)

PARTS LIST (ACCESSORY & PACKING GROUP)

NOTE :

- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

	Part No.	Description
	1-467-588-11	REMOTE COMMANDER (RM-U541)
	1-501-374-11	ANTENNA, LOOP
	1-501-659-11	ANTENNA (FM)
	1-558-271-11	CORD, CONNECTION (AUDIO)
	1-690-926-11	CORD, SPEAKER (SS-CR64)
	1-765-120-11	CORD, CONNECTION (WOOFER)
	1-765-121-11	CORD (WITH CONNECTOR)
	1-765-604-21	CORD, SPEAKER (SS-CR10)
	3-707-584-31	COVER, BATTERY (FOR RM-U541)
	3-758-545-21	MANUAL, INSTRUCTION (ENGLISH) (SS-CR64)
	3-759-123-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, POLISH, GERMAN, DUTCH, SWEDISH, ITALIAN) (SS-CR10)
	3-759-871-21	MANUAL, INSTRUCTION (ENGLISH, FRENCH) (Canadian)
	3-798-168-11	MANUAL, INSTRUCTION (SPANISH) (Mexican)
	3-798-168-41	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, CHINESE, ARABIC) (E, Singapore)
*	4-971-786-01	CARTON (Canadian, Mexican)
*	4-965-223-01	INDIVIDUAL CARTON (SS-CR64)
*	4-967-971-02	INDIVIDUAL CARTON (SS-CR10)
*	4-971-787-01	INDIVIDUAL CARTON (E)
*	4-971-788-01	INDIVIDUAL CARTON (Singapore)
	4-950-577-01	FOOT (SS-CR10/CR64)

SPECIFICATIONS

Dimensions	Approx. 430 × 410 × 400 mm (w/h/d) (17 × 16 $^{3}/_{16}$ × 15 $^{3}/_{4}$ inches) (including projecting parts and controls)
Mass	Approx. 9.5 kg (20 lb 15 oz) net
Accessories supplied	AM loop antenna (1) FM wire antenna (1) Remote Commander RM-U541 (1) Sony batteries SUM-3 (NS) (2) System control cord (1) Audio connecting cord (3) Speaker cords 3m (10 feet) (3) Feet for SA-W552 (4) Feet for SS-CN64 and SS-U64 (12) (Canadian) Feet for SS-CN10 and SS-U10(12) (E, Mexican, Singapore)

Design and Specifications subject to change without notice.

STEREO COMPONENT SYSTEM

SONY®

MICROFILM

9-960-077-11

Sony Corporation
Consumer A&V Products Company
Home A&V Products Div.

English
95B0285-1
Printed in Japan
©1995.2
Published by Home A&V Products Div.
Quality Engineering Dept.

SEN-551CD/R5520

SERVICE MANUAL

Canadian Model
E Model
SEN-551CD

AEP Model
UK Model
SEN-R5520

REVISED

Discard SEN-551CD/R5520 service manual (No. 9-960-077-11) previously issued.
This service manual contains it.

- This system is composed of following model.
  As for the service manual, it is issued for each component model, then, please refer to it.

COMPONENT MODEL NAME FOR THIS SYSTEM

	SEN-551CD	SEN-R5520
AMPLIFIER, TUNER, TAPE DECK, CD	HCD-551	HCD-551
SPEAKER SYSTEM	SS-CR64 (SS-CN64) (SS-U64) (Canadian model) SS-CR10 (SS-CN10) (SS-U10) (E, Mexican, Singapore model)	SS-CR10 (SS-CN10) (SS-U10) (AEP, UK, German model)

PARTS LIST (ACCESSORY & PACKING GROUP)

NOTE :
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

	Part No.	Description	Remark
	1-467-588-11	REMOTE COMMANDER (RM-U541)	
	1-501-374-11	ANTENNA, LOOP	
	1-501-659-11	ANTENNA (FM)	
	1-558-271-11	CORD, CONNECTION (AUDIO)	
	1-690-926-11	CORD, SPEAKER (SS-CR64)	
	1-765-120-11	CORD, CONNECTION (WOOFER)	
	1-765-121-11	CORD (WITH CONNECTOR)	
	1-765-604-21	CORD, SPEAKER (SS-CR10)	
	3-707-584-31	COVER, BATTERY (for RM-U541)	
	3-758-545-21	MANUAL, INSTRUCTION (ENGLISH) (SS-CR64)	
	3-759-123-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE, GERMAN, DUTCH, SWEDISH, ITALIAN) (SS-CR10)	
	3-759-871-21	MANUAL, INSTRUCTION (ENGLISH, FRENCH) (Canadian)	
	3-798-168-11	MANUAL, INSTRUCTION (SPANISH) (Mexican)	
	3-798-168-41	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, CHINESE, ARABIC) (E, Singapore)	
*	4-971-786-01	CARTON (Canadian, Mexican)	
*	4-965-223-01	INDIVIDUAL CARTON (SS-CR64)	
*	4-967-971-02	INDIVIDUAL CARTON (SS-CR10)	
*	4-971-787-01	INDIVIDUAL CARTON (E)	
*	4-971-788-01	INDIVIDUAL CARTON (Singapore)	
	4-950-577-01	FOOT (SS-CR10/CR64)	
	4-966-780-01	FOOT (for SA-W552)	

SPECIFICATIONS

Dimensions
Approx. 430×410×400mm (w/h/d)
(17×16 $^{3}/_{16}$×15 $^{3}/_{4}$ inches)
(including projecting parts and controls)

Mass
Approx. 9.5kg (20 lb 15 oz) net

Supplied accessories
AM loop antenna (1)
FM wire antenna (1)
Remote Commander RM-U541 (1)
Sony batteries SUM-3 (NS) (2)
System control cord (1)
Audio connecting cord (3)
Speaker cords 3m (10 feet) (3)
Feet for SA-W552 (4)
Feet for SS-CN64 and SS-U64 (12)(Canadian)
Feet for SS-CN10 and SS-U10 (12)
(E, Mexican, Singapore)

Design and specifications are subject to change without notice.

STEREO COMPONENT SYSTEM

MICROFILM

9-960-077-12

SONY®

Sony Corporation
Consumer A&V Products Company
Home A&V Products Div.

English
96A0481-1
Printed in Japan
© 1996.1
Published by Home A&V Products Div. Quality Engineering Dept.

HCD-551

SERVICE MANUAL

US Model
Canadian Model
UK Model
E Model
German Model

CD Section	Model Name Using Similar Mechanism		CDP-C231
	CD Mechanism Type		CDM-16E9
	Base Unit Name		BU-5BD13
Tape deck Section	Model Name Using Similar Mechanism		NEW
	Tape Transport Mechanism Type	DECK A	TCM-190RA12CL
		DECK B	TCM-190RB53C

SPECIFICATIONS

Amplifier

Frequency response	PHONO: RIAA curve VIDEO 1/MD, VIDEO 2: 40 Hz – 50 kHz ±3 dB

Audio section
Input

	Sensitivity	Impedance
PHONO	2.5 mV	50 kilohms
VIDEO 1/MD **VIDEO 2**	250 mV	50 kilohms

Output	VIDEO 1/MD: Voltage 250 mV Impedance 1 kilohm
Tone buttons	BASS: Boost/Cut range: ±7 dB (100 Hz) TREBLE: Boost/Cut range: ±7 dB (10 kHz)

Video section
Video input/output

Permissible signal input level	VIDEO 1, 2: 1.5 Vp – p
Output signal level	VIDEO 1, MONITOR: 1.5 Vp – p
Impedance (output)	75 ohms unbalanced, negative sync

Tuner

System	FM stereo, FM/AM superheterodyne tuner Quartz-locked PLL digital synthesizer system

FM tuner section

Tuning range	87.5 – 108 MHz
Antenna terminals	75 ohms unbalanced 300 ohms balanced (EXCEPT German and UK model)
Intermediate frequency	10.7 MHz
Sensitivity (at 50 dB quieting)	22.1 dBf, 7 µV (mono) 42.1 dBf, 70 µV (stereo)
Usable sensitivity	19.5 dBf, 5 µV (IHF)
Signal-to-noise ratio (at 75 kHz deviation)	80 dB (mono) 75 dB (stereo)
Separation	35 dB at 1 kHz
Selectivity	55 dB at 400 kHz
Harmonic distortion	0.3% (mono) at 1 kHz 0.5% (stereo) at 1 kHz

– Continued on page 2 –

COMPACT DISC DECK RECEIVER

SONY®

AM tuner section

Tuning range	Model for U.S.A., Canada and Mexico 530 – 1,710 kHz (10 kHz) 531 – 1,710 kHz (9 kHz) Model for E 531 - 1,710kHz (9kHz) 530 - 1,710kHz (10kHz) Model for German, Singapore and UK 531 - 1,602kHz
Antenna	AM loop antenna, External antenna terminals
Intermediate frequency	450 kHz
Usable sensitivity	AM loop antenna: 500 µV/m (1,000 kHz)
Signal-to-noise ratio	54 dB
Harmonic distortion	0.5%
Selectivity	38 dB (10 kHz)

Tape Deck

System	4-track 2-channel stereo
Frequency response	(DOLBY NR OFF) With TYPE II cassette (Sony UCX-S): 30 – 14,000 Hz (±3 dB) With TYPE I cassette (Sony HF-S): 30 – 13,000 Hz (±3 dB)
Wow and flutter	0.08% WRMS (NAB)

Compact Disc

System	Compact disc digital audio system
Laser	Semiconductor laser
Wavelength	780-790 nm
Frequency response	2 Hz – 20 kHz (±1.5 dB)
Harmonic distortion	Less than 0.03 % (1 kHz)

General

Dimensions	Approx. 430 x 410 x 400 mm (w/h/d) (17 x 16$^3/_{16}$ x 15$^3/_4$ inches) (including projecting parts and controls)
Mass	Approx. 9.5 kg (20 lb 15 oz) net
Accessories supplied	AM loop antenna (1) FM wire antenna (1) Remote Commander RM-U541 (1) Sony batteries SUM-3(NS) (2) System control cord (1) Audio connecting cord (3) Feet (4)

Design and specifications are subject to change without notice.

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

The following caution label is located inside the unit.

CAUTION	. INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM
ADVARSEL	: USYNLIG LASERSTRALING VED ABNING NAR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGA UDSÆTTELSE FOR STRALING.
VARO!	; AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTINA LASERSÄTEILYLLE
VARNING	. LASERSTRALING NÄR DENNA DEL ÄR OPPNAD OCH SPARREN AR URXOPPLAD
ADVARSEL	: USYNLIG LASERSTRALING NAR DEKSEL APNES UNNGA EKSPONERING FOR STRALEN

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Dolby noise reduction manufactured under license form Dolby Laboratories licensing Corporation.
"DOLBY" and the double-D symbol ▯▯ are trade, marks of Dolby Laboratories Licensing corporation.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

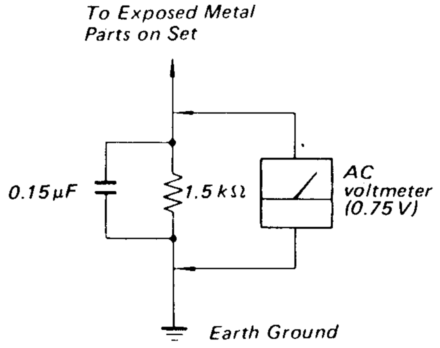


Fig. A. Using an AC voltmeter to check AC leakage.

TABLE OF CONTENTS

Section *Title* *Page*

Specifications 1

1. GENERAL 4

2. DISASSEMBLY
2-1. Case, Chassis 7
2-2. Front Panel 8
2-3. CD Block 8
2-4. Disc Table 9

3. ADJUSTMENTS
3-1. Mechanical Adjustments 10
3-2. Electrical Adjustments 10

4. EXPLANATION OF IC TERMINALS 16

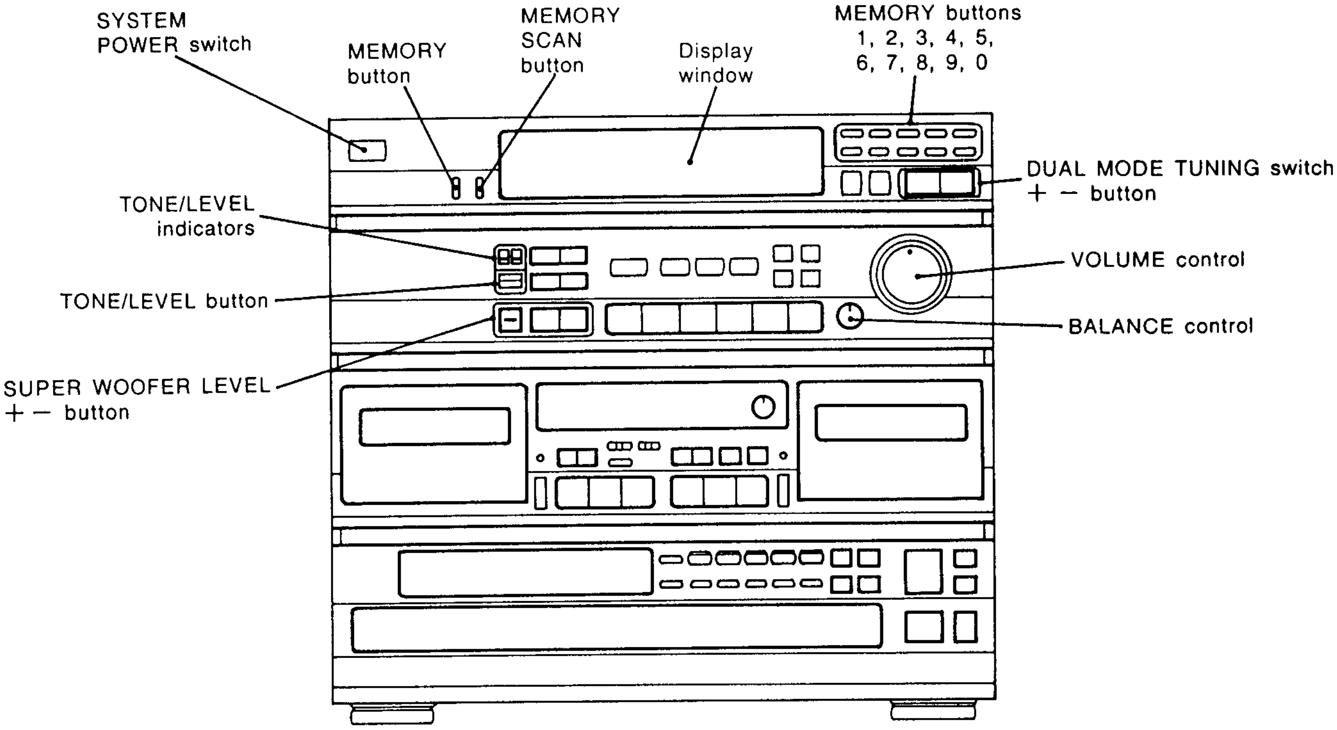
5. DIAGRAMS
5-1. Block Diagram 19
5-2. Printed Wiring Boards – Main Section – 26
5-3. Schematic Diagram – Main Section – 29
5-4. Schematic Diagram – TC Section – 35
5-5. Printed Wiring Boards – TC Section – 39
5-6. Printed Wiring Boards – CD Section – 43
5-7. Schematic Diagram – CD Section – 47
5-8. Printed Wiring Boards – Panel Section – 52
5-9. Schematic Diagram – Panel Section – 55

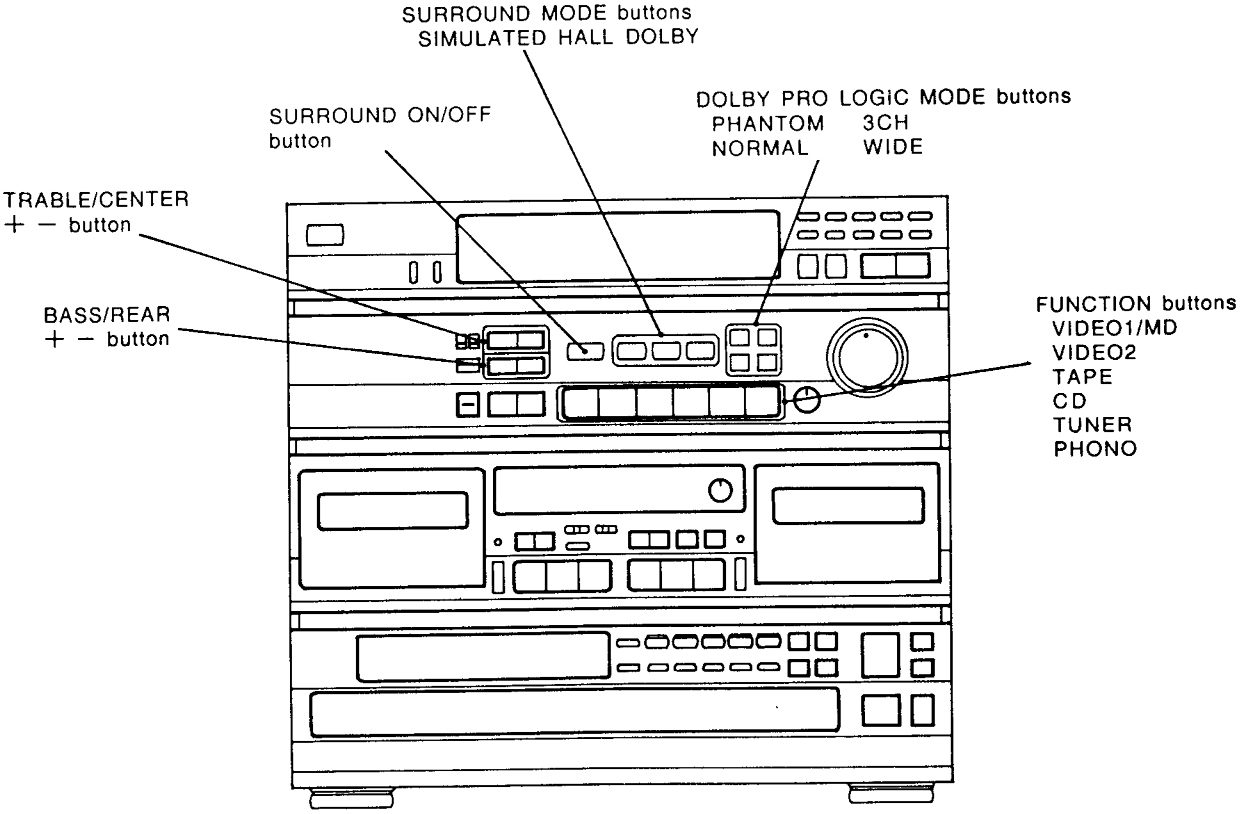
6. EXPLODED VIEWS
6-1. Cabinet Section 58
6-2. Front Panel Section 59
6-3. TC Block Section 60
6-4. Tray Section 61
6-5. TC Mechanism Section-1 62
(TCM-190RA12CL : DECK A)
(TCM-190RB53C : DECK B)
6-6. TC Mechanism Section-2 63
(TCM-190RA12CL : DECK A)
(TCM-190RB53C : DECK B)
6-7. Optical Pick-up Block Section 64
(BU-5BD13)

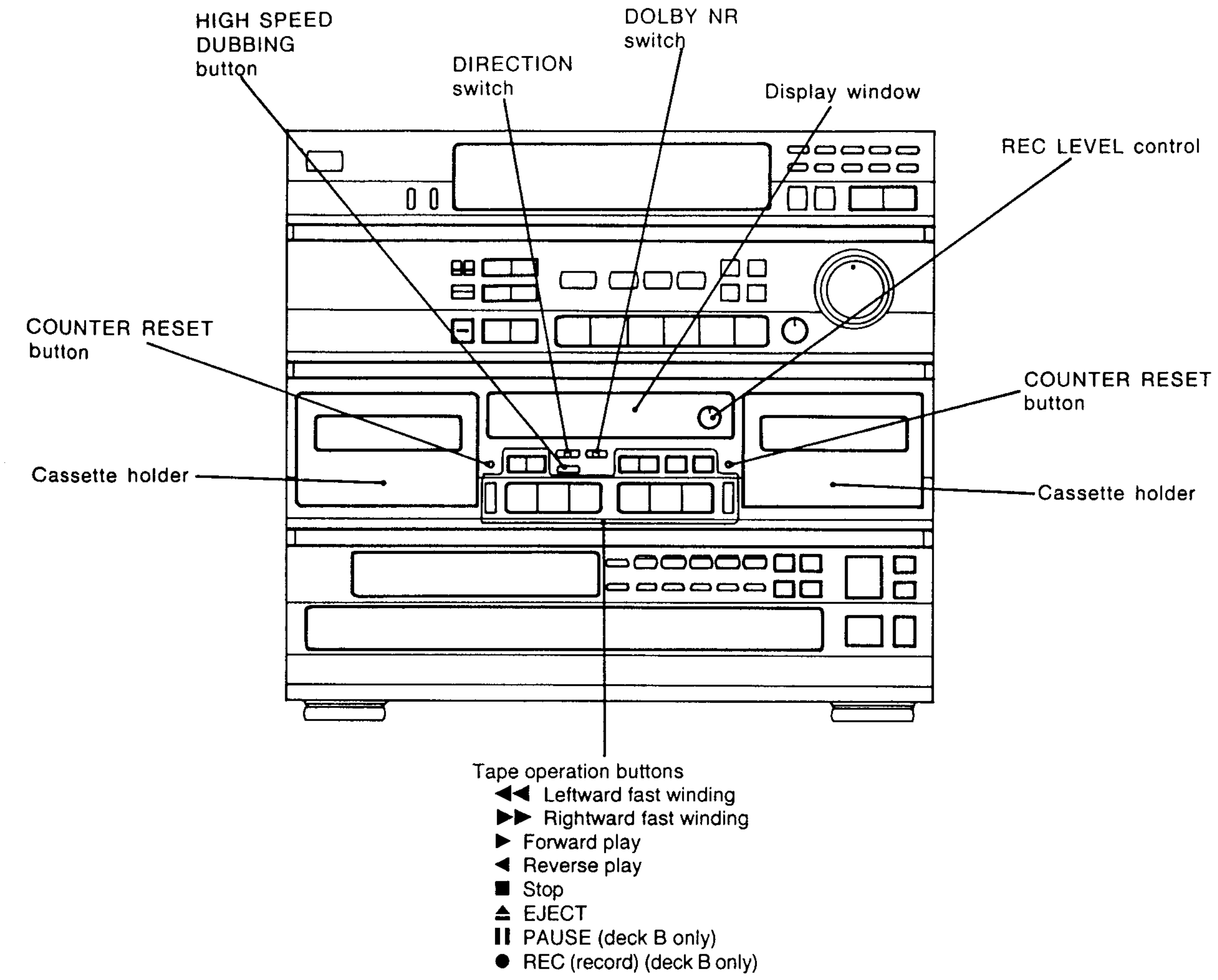
7. ELECTRICAL PARTS LIST 65

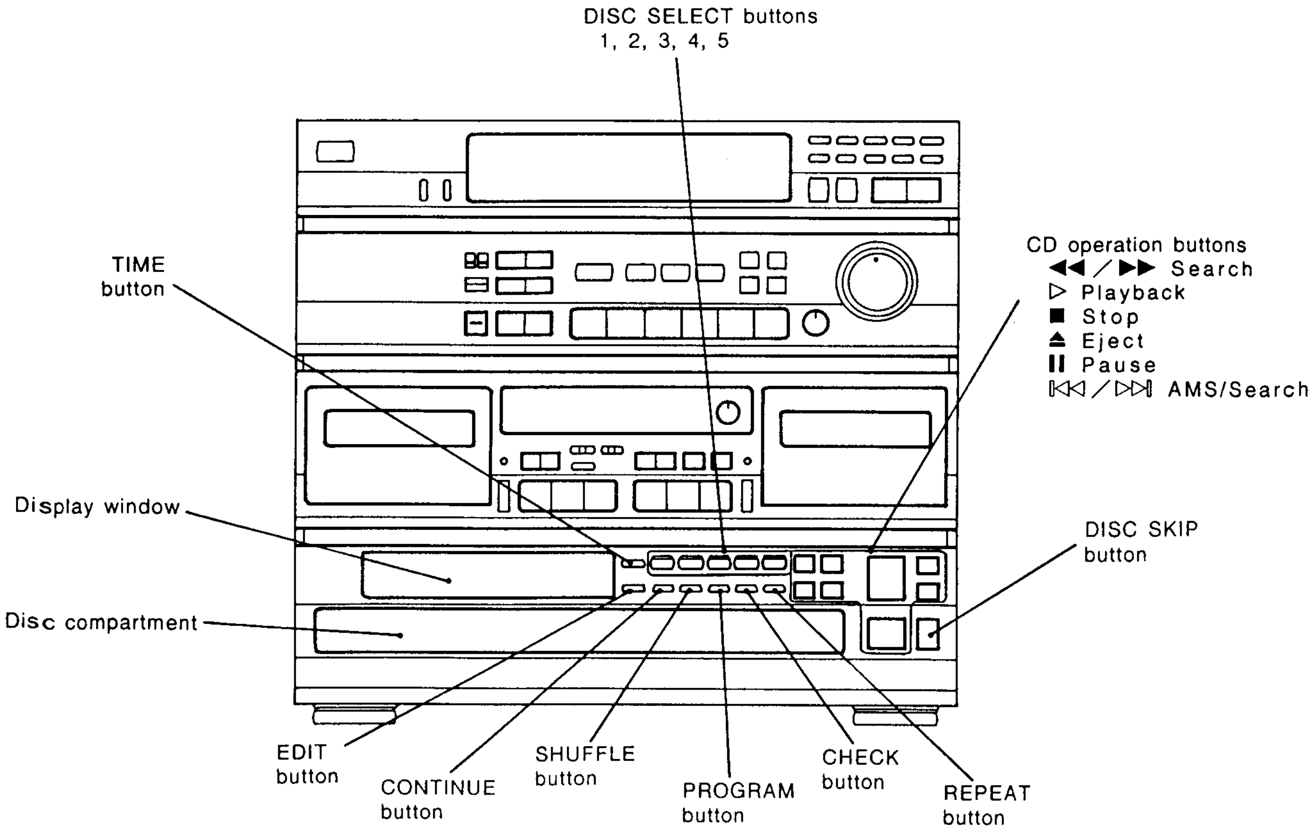
SECTION 1
GENERAL

LOCATION AND FUNCTION OF CONTROLS


SYSTEM POWER switch
MEMORY button
MEMORY SCAN button
Display window
MEMORY buttons 1, 2, 3, 4, 5, 6, 7, 8, 9, 0
DUAL MODE TUNING switch + − button
TONE/LEVEL indicators
TONE/LEVEL button
VOLUME control
BALANCE control
SUPER WOOFER LEVEL + − button


SURROUND MODE buttons SIMULATED HALL DOLBY
SURROUND ON/OFF button
DOLBY PRO LOGIC MODE buttons PHANTOM 3CH NORMAL WIDE
TRABLE/CENTER + − button
BASS/REAR + − button
FUNCTION buttons VIDEO1/MD VIDEO2 TAPE CD TUNER PHONO


HIGH SPEED DUBBING button
DOLBY NR switch
DIRECTION switch
Display window
REC LEVEL control
COUNTER RESET button
COUNTER RESET button
Cassette holder
Cassette holder
Tape operation buttons
◀◀ Leftward fast winding
▶▶ Rightward fast winding
▶ Forward play
◀ Reverse play
■ Stop
≜ EJECT
❙❙ PAUSE (deck B only)
● REC (record) (deck B only)


DISC SELECT buttons
1, 2, 3, 4, 5
TIME button
CD operation buttons
◀◀ / ▶▶ Search
▷ Playback
■ Stop
≜ Eject
❙❙ Pause
|◁◁ / ▷▷| AMS/Search
Display window
DISC SKIP button
Disc compartment
EDIT button
CONTINUE button
SHUFFLE button
PROGRAM button
CHECK button
REPEAT button

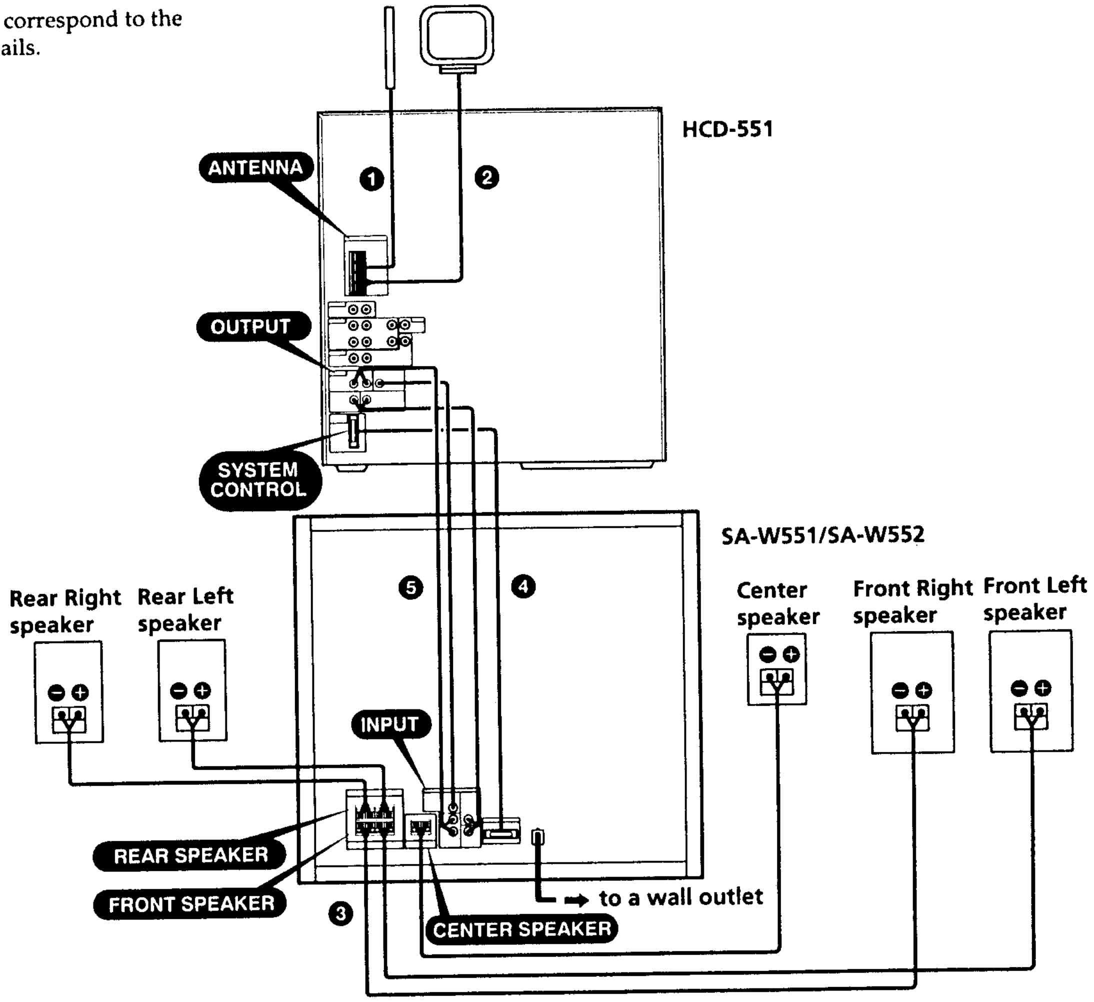
This section is extracted from instruction manual.

Hooking Up the System

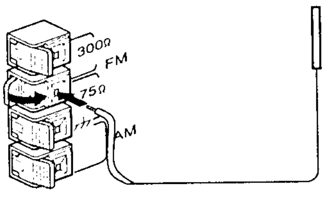
This section describes about the antenna and speaker connections and the system control connections for SA-W551/SA-W552. Also, it shows about the connection with the other audio equipments.

- Connect the AC power cord last. Make sure power is off.
- Cord plugs and jacks are color coded. Red plugs and jacks are for right channel (R) and white ones for the left channel (L). And also, red plugs and jacks are for REAR terminal and white ones for CENTER terminal. Black plugs and jacks are for SUPER WOOFER terminal.
- The cable connectors should be fully inserted into the jacks. A loose connection may cause hum and noise.
- Keep speaker cords, connecting cords and power cords away from the AM loop antenna and the tuner's antenna lead-in to avoid possible noise pickup.

The numbers correspond to the following details.

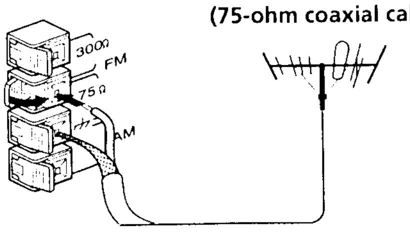

HCD-551
ANTENNA
❶
❷
OUTPUT
SYSTEM CONTROL
SA-W551/SA-W552
Rear Right speaker
Rear Left speaker
❺
❹
Center speaker
Front Right speaker
Front Left speaker
INPUT
REAR SPEAKER
FRONT SPEAKER
❸
to a wall outlet
CENTER SPEAKER

❶ FM wire antenna (supplied)


300Ω
FM
75Ω
AM

For better FM reception

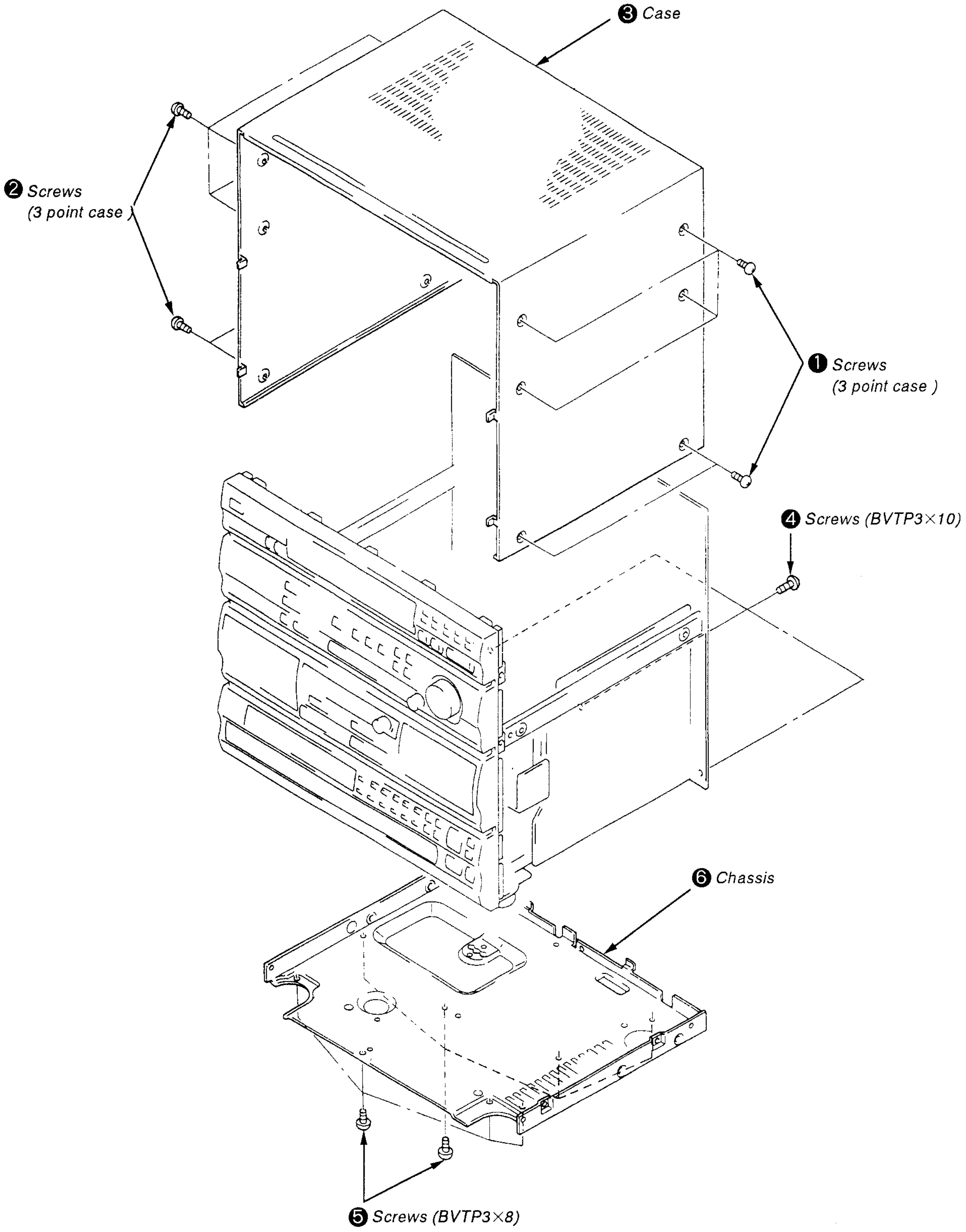
Outdoor FM antenna
(75-ohm coaxial cable)


300Ω
FM
75Ω
AM

SECTION 2
DISASSEMBLY

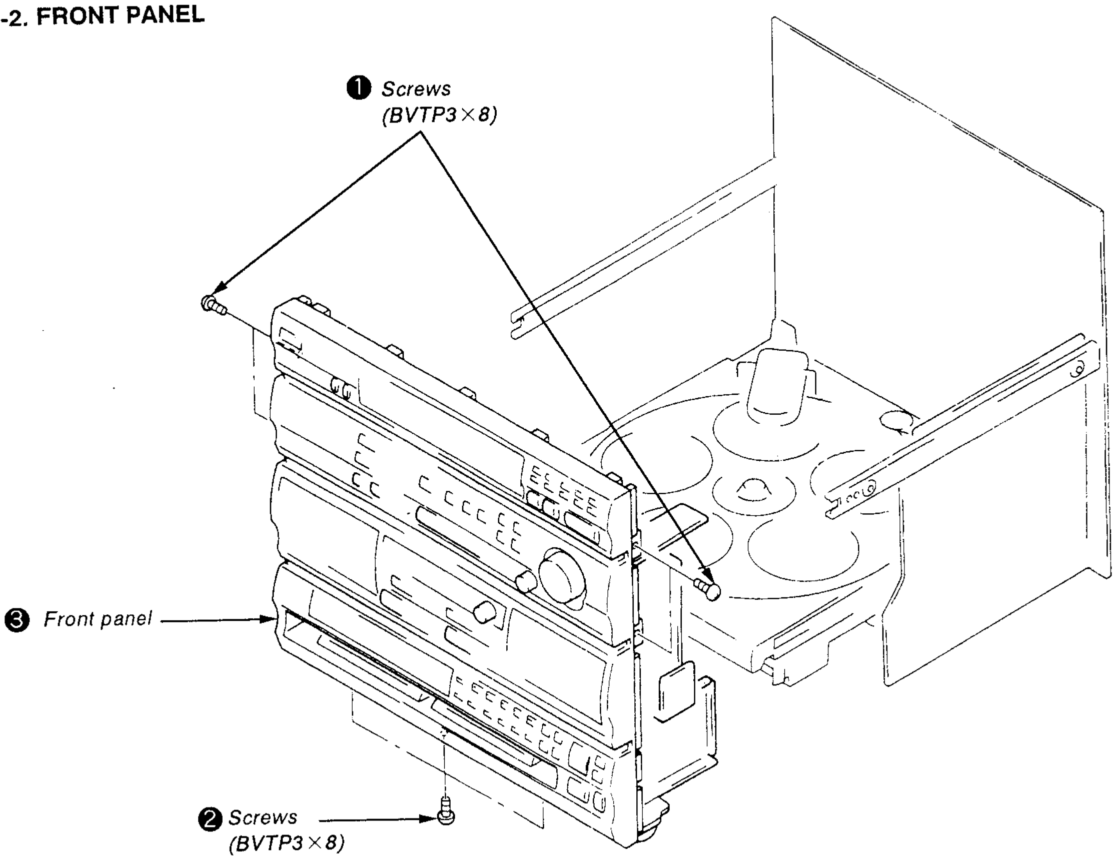
Note : Follow the disassembly procedure in the numerical order given.

2-1. CASE, CHASSIS

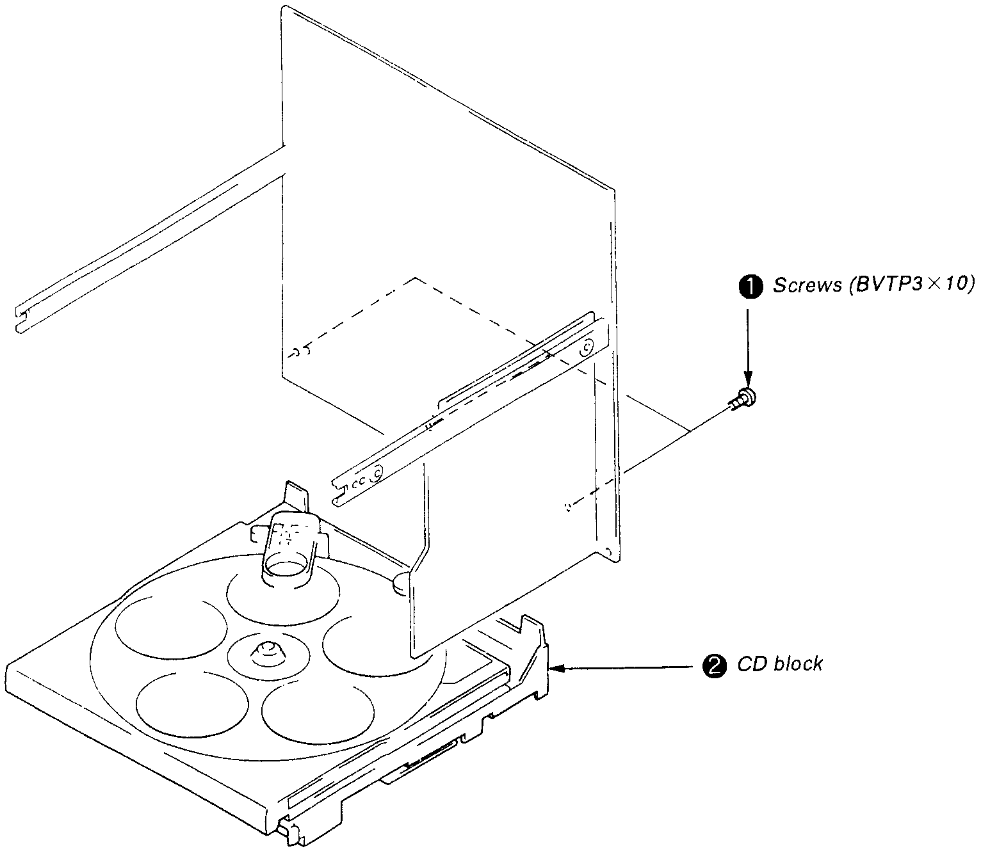


❸ Case
❷ Screws
(3 point case)
❶ Screws
(3 point case)
❹ Screws (BVTP3×10)
❻ Chassis
❺ Screws (BVTP3×8)

2-2. FRONT PANEL

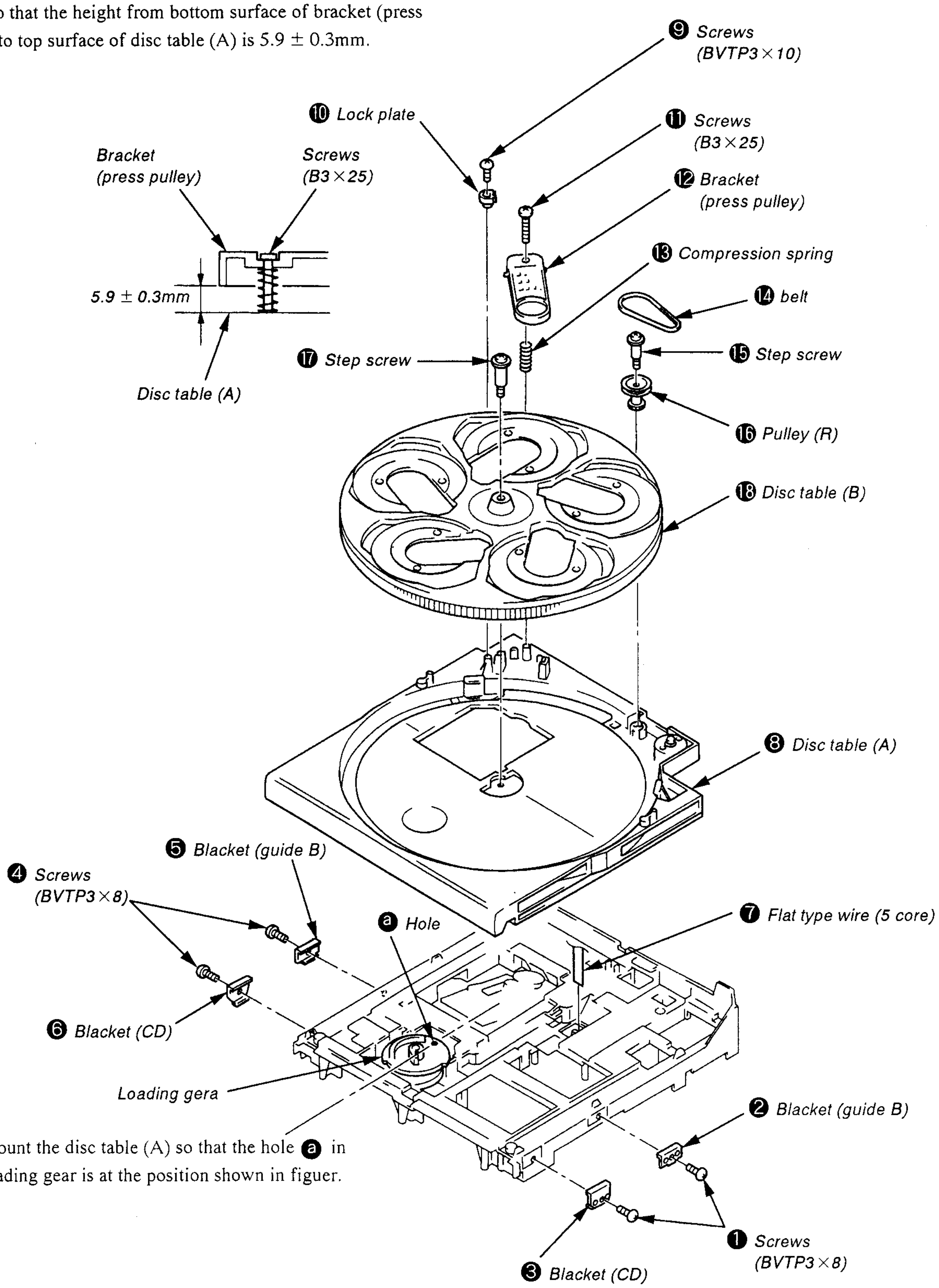

❶ Screws
(BVTP3×8)
❸ Front panel
❷ Screws
(BVTP3×8)

2-3. CD BLOCK


❶ Screws (BVTP3×10)
❷ CD block

2-4. DISC TABLE

※ when mounting the bracket (press, pulley), rotate to adjust the screw so that the height from bottom surface of bracket (press pulley) to top surface of disc table (A) is 5.9 ± 0.3mm.



⑨ Screws (BVTP3×10)
⑩ Lock plate
⑪ Screws (B3×25)
⑫ Bracket (press pulley)
⑬ Compression spring
⑭ belt
⑮ Step screw
⑯ Pulley (R)
⑰ Step screw
⑱ Disc table (B)
⑧ Disc table (A)
⑦ Flat type wire (5 core)
ⓐ Hole
⑤ Blacket (guide B)
④ Screws (BVTP3×8)
⑥ Blacket (CD)
Loading gera
② Blacket (guide B)
① Screws (BVTP3×8)
③ Blacket (CD)
Bracket (press pulley)
Screws (B3×25)
5.9 ± 0.3mm
Disc table (A)

※ Mount the disc table (A) so that the hole ⓐ in loading gear is at the position shown in figuer.

SECTION 3
ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab :

record/playback head	pinch roller
erase head	rubber belts
capstan	idlers

2. Demagnetize the record/playback head with a head demagnetizer. (Head demagnetizer do nor approach for the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

- **Torque Measurement**

Mode	Torque Meter	Meter Reading
FWD	CQ-102C	35 to 60g•cm (0.49 – 0.83 oz•inch)
FWD Back Tension	CQ-102C	2 to 6g•cm (0.03 – 0.08 oz•inch)
REV	CQ-102RC	35 to 60g•cm (0.49 – 0.83 oz•inch)
REV Back Tension	CQ-102RC	2 to 6g•cm (0.03 – 0.08 oz•inch)
FF, REW	CQ-201B	70 to 110g•cm (0.98 – 1.52 oz•inch)

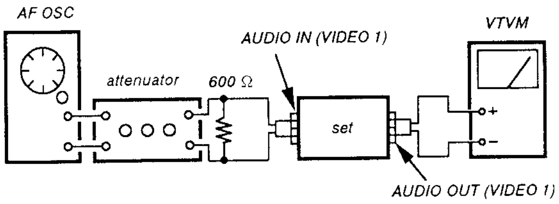
3-2. ELECTRICAL ADJUSTMENTS

TC SECTION

PRECAUTION

1. The adjustment should be performed in the publication. (Be sure to make playback adjustment at first.)
2. The adjustment and measurement should be performed for both L-CH and R-CH.
   - Switch position
     DOLBY NR switch : OFF
     REC volume : Maximum

– Record Mode –


AF OSC
attenuator
600 Ω
AUDIO IN (VIDEO 1)
set
VTVM
AUDIO OUT (VIDEO 1)

0dB=0.775V

Standard Input Level

input terminal	AUDIO IN (VIDEO 1)
input signal terminal	– 23dB (54.9mV)

Standard Output Level

output terminal	AUDIO OUT (VIDEO 1)
output signal terminal	– 8.3dB (298.1mV)

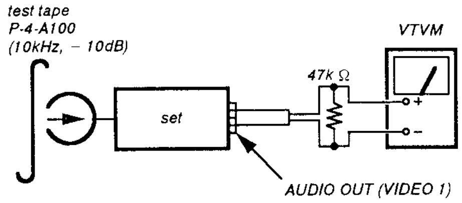
Test Tape 0dB=160nwb/m

Tape	Contents	Use
P-4-A100	10kHz, – 10dB	Head Azimuth Adjustment
P-4-L300	315Hz, 0dB	PB Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

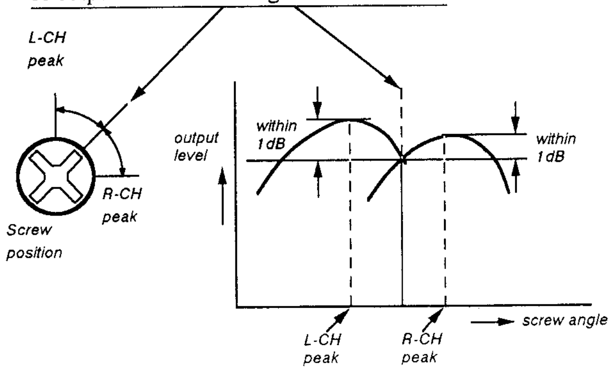
Record/Playback Head Azimuth Adjustment

Procedure :

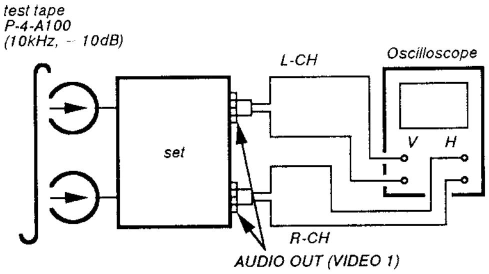
1. Forward Playback mode

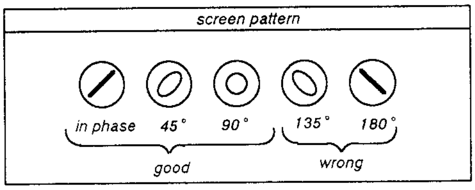

test tape
P-4-A100
(10kHz, – 10dB)
VTVM
47k Ω
set
+
–
AUDIO OUT (VIDEO 1)

2. Turn the adjustment screw for the maximum output levels. If these levels do not match,turn the adjustment screw until both of output levels match together within 1dB.



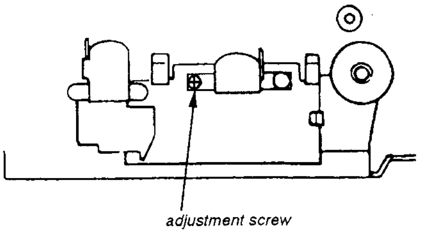
3. Playback Mode


test tape
P-4-A100
(10kHz, – 10dB)
L-CH
Oscilloscope
set
V
H
R-CH
AUDIO OUT (VIDEO 1)


screen pattern
in phase
45°
90°
135°
180°
good
wrong

4. Change the reverse playback mode and repeat the steps 1 to 3.
5. After the adjustment, lock the adjustment screws with suitable locking compound.

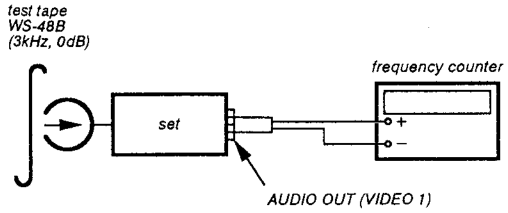
Adjustment Location : – record/playback head –


adjustment screw

Tape Speed Adjustment

Procedure :

– Forward playback Mode –


test tape
WS-48B
(3kHz, 0dB)
frequency counter
set
+
–
AUDIO OUT (VIDEO 1)

Perform high speed adjustment before normal speed adjustment.

(High speed adjustment)

1. Shorted the both terminal of the connector CN205 by lead wire to short between ㉞ pin of IC205 and ground.
2. Set to FWD playback mode.
3. Keep on pressing the HIGH SPEED DUBBING switch.
4. Adjust RV72 so that the frequency counter reading becomes 5,700 ± 20Hz.
5. After adjustment, disconnect CN209 shorted in step 1.

(Normal speed adjustment)

1. Set to FWD playback mode.
2. Adjust RV71 so that the frequency counter reading becomes 3,000 ± 10Hz.

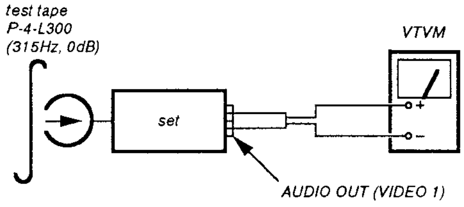
Frequency difference between the begining and the end of the tape should be within 1.5%.
Frequency difference between deck A and deck B the biginning of the tape should be within 1.5%.

Adjustment Location : MD-A, MD-B board.

Playback Level Adjustment

Procedure :

– Forward playback Mode –


test tape
P-4-L300
(315Hz, 0dB)
VTVM
set
+
–
AUDIO OUT (VIDEO 1)

Adjust deck A is (RV11 L-ch and RV21 R-ch), B (RV11 L-ch and RV21 R-ch) so the VTVM reading becomes the adjustment limits below.

Adjustment Value :

LINE OUT level : – 8.3 ± 0.5dB (281.4 to 315.7mV)

Level Difference between Channels : within 0.5dB

Confirm the VIDEO OUT level does not change in playback mode while changing the mode from playback to stop several times.

Adjustment Location : MD-A, MD-B board. (See page 12)

Record Bias Adjustment (DECK-B)

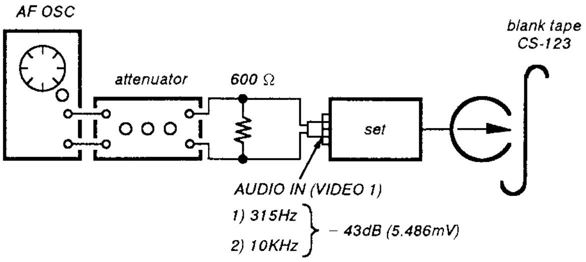
Setting :

REC LEVEL control : Maximum

Procedure :

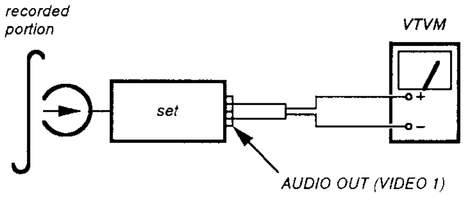
1. FUNCTION : VIDEO position

– Record mode –


AF OSC
attenuator
600 Ω
set
blank tape
CS-123
AUDIO IN (VIDEO 1)
1) 315Hz
2) 10KHz
– 43dB (5.486mV)

2. FUNCTION : TAPE position

– Playback mode –


recorded
portion
VTVM
set
+
–
AUDIO OUT (VIDEO 1)

Playback the signal recorded in step 1.
Confirm that the 10kHz playback output is 0 ± 0.5dB relative to the 315Hz output. If necessary, adjust RV12 (L-ch), RV22 (R-ch) and repeat the steps given above.

Adjustment Location : MD-B board. (See page 12)

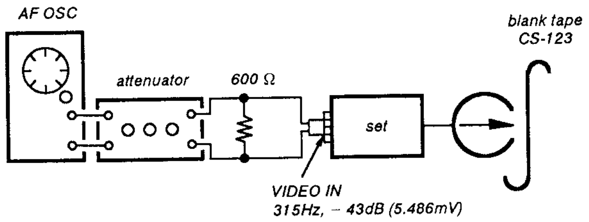
Record Level Adjustment (DECK-B)

Setting :

Procedure :

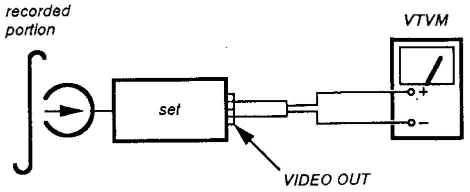
1. FUNCTION : VIDEO position

– Record mode –


AF OSC
attenuator
600 Ω
set
blank tape
CS-123
VIDEO IN
315Hz, – 43dB (5.486mV)

2. FUNCTION : TAPE position

– Playback mode –


recorded
portion
VTVM
set
VIDEO OUT

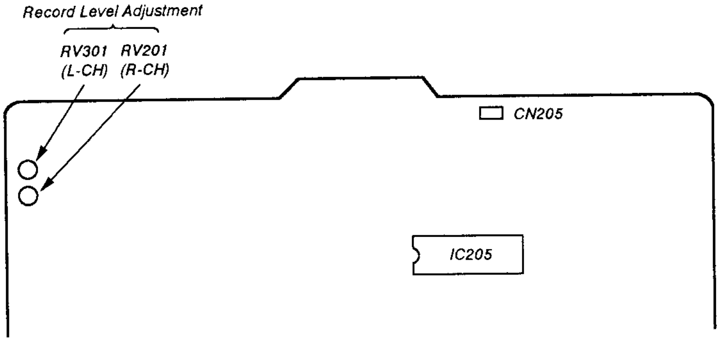
Confirm playback the tape record become adjustment level as follows. If necessary, adjust RV301 (L-ch), RV201 (R-ch) and repeat the step 1 and step 2.

Adjustment Value :

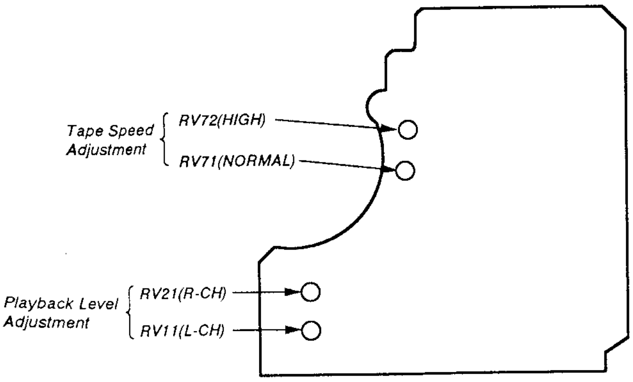
LINE OUT level : – 28.3 ± 0.5dB (31.6 to 28.1mV)

Adjustment Location : TC MAIN board

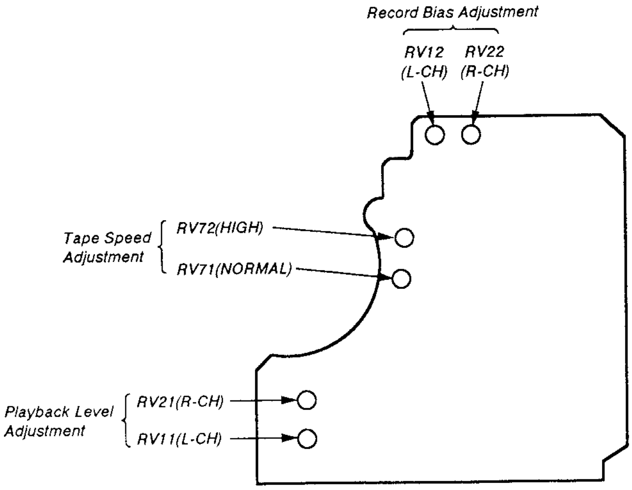
[TC MAIN BOARD] – Component side –


Record Level Adjustment
RV301
(L-CH)
RV201
(R-CH)
CN205
IC205

[MD-A BOARD] – Component side –


Tape Speed
Adjustment
RV72(HIGH)
RV71(NORMAL)
Playback Level
Adjustment
RV21(R-CH)
RV11(L-CH)

[MD-B BOARD] – Component side –

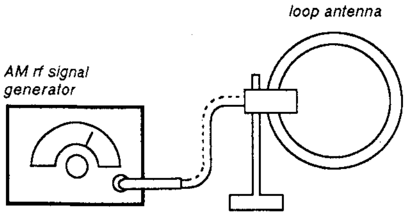

Record Bias Adjustment
RV12
(L-CH)
RV22
(R-CH)
Tape Speed
Adjustment
RV72(HIGH)
RV71(NORMAL)
Playback Level
Adjustment
RV21(R-CH)
RV11(L-CH)

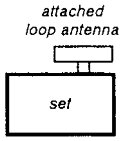
TUNER SECTION

The FM TUNED level must be adjusted after the AM TUNED level adjustment has completed.

AM Tuned Level Adjustment

Setting :


loop antenna
AM rf signal generator


attached loop antenna
set

Carrier frequency : 1,050kHz (US, CND, E, MX, SP)
999kHz (UK,G)
Modulation : 400Hz, 30% modulation

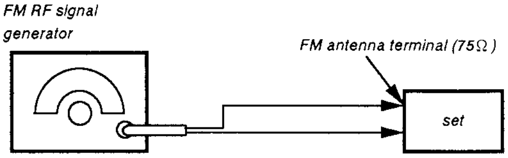
Procedure :

1. Set loop antenna input level to 52dBμ/m and no signal tuned light should not on.
2. Tune the set to 1,050kHz (US, CND, E, MX, SP) or 999kHz (UK,G).
3. Adjust RV1 to the point where "TUNED " sign no FL501 just turns right.

Adjustment Location : Main board

FM Tuned Level Adjustment

Setting :


FM RF signal generator
FM antenna terminal (75Ω)
set

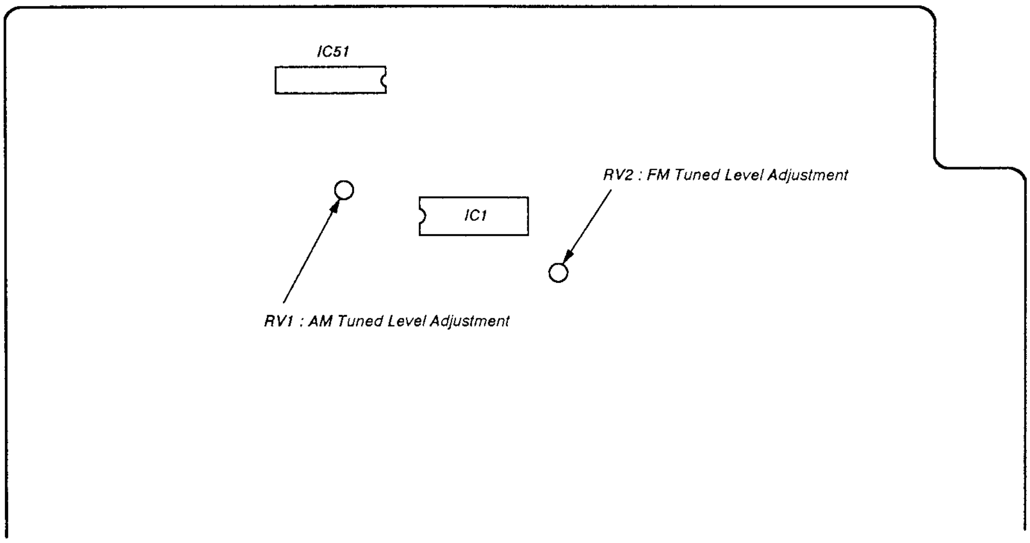
Carrier frequency : 98MHz
Output level : 1mV (60dBμ)
Modulation : 1kHz, 75kHz deviation

Procedure :

1. Tune the set to 98MHz.
2. Adjust RV2 to the point where "TUNED " sign no FL501 just turns right.

Adjustment Location : Main board

[MAIN BOARD] – Component side –

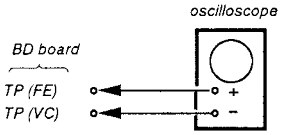

IC51
IC1
RV2 : FM Tuned Level Adjustment
RV1 : AM Tuned Level Adjustment

CD SECTION

Note :

1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10M Ω impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

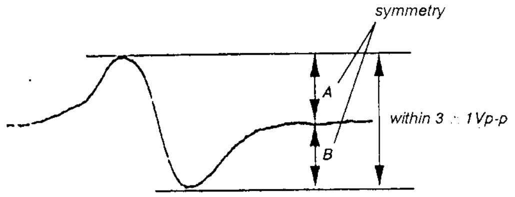
S-Curve Check



Procedure :

1. Connect oscilloscope to test point TP (FE) and BD board.
2. Connect between test point TP (FEI) and TP (VC) by lead wire.
3. Turned Power switch on.
4. Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 3 ± 1Vp-p.

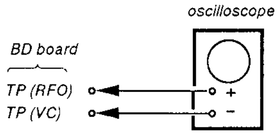
S-curve waveform



6. After check, remove the lead wire connected in step 2.

Note : ● Try to measure several times to make sure that the ratio of A : B or B : A is more than 10 : 7.
● Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check



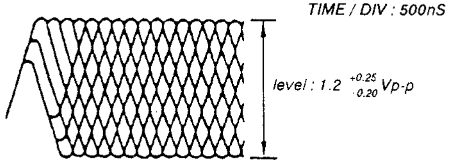
Procedure :

1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

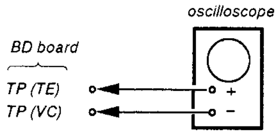
Note :

Clear RF signal waveform means that the shape " ◇ " can be clearly distinguished at the center of the waveform.

RF signal waveform



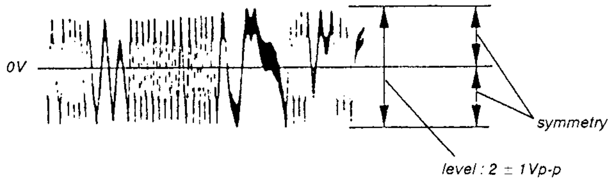
E-F Balance Check



Procedure :

1. Connect test point TP (ADJ) to ground and TP (TEI) to TP (VC) with lead wire.
2. Connect oscilloscope to test point TP (TE) on BD board.
3. Turned Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the osilloscope waveform is symmetrical on the top and bottom in relation to 0V, and check this level.

Traverse waveform

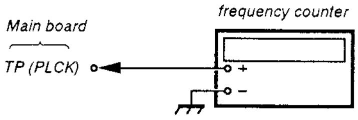


6. Remove the lead wire connected in step 1.

RF PLL Free-run Frequency Adjustment

Procedure :

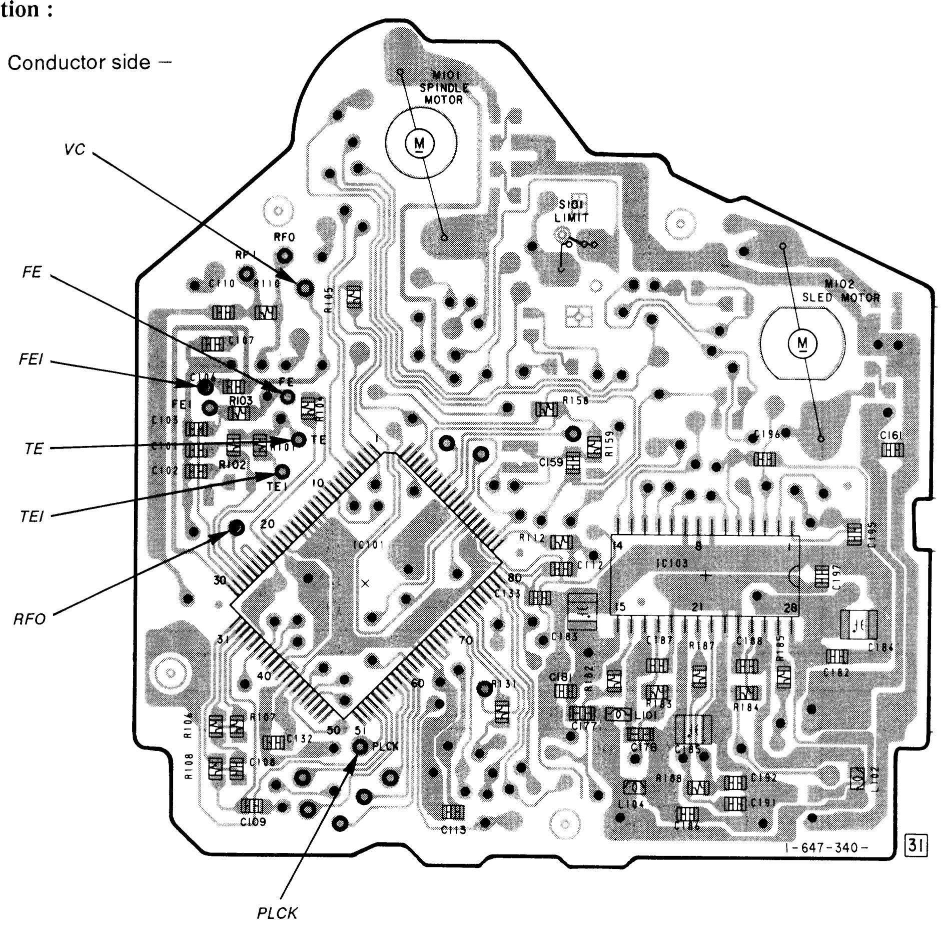
1. Connect frequency counter to test point TP (PLCK) with lead wire.



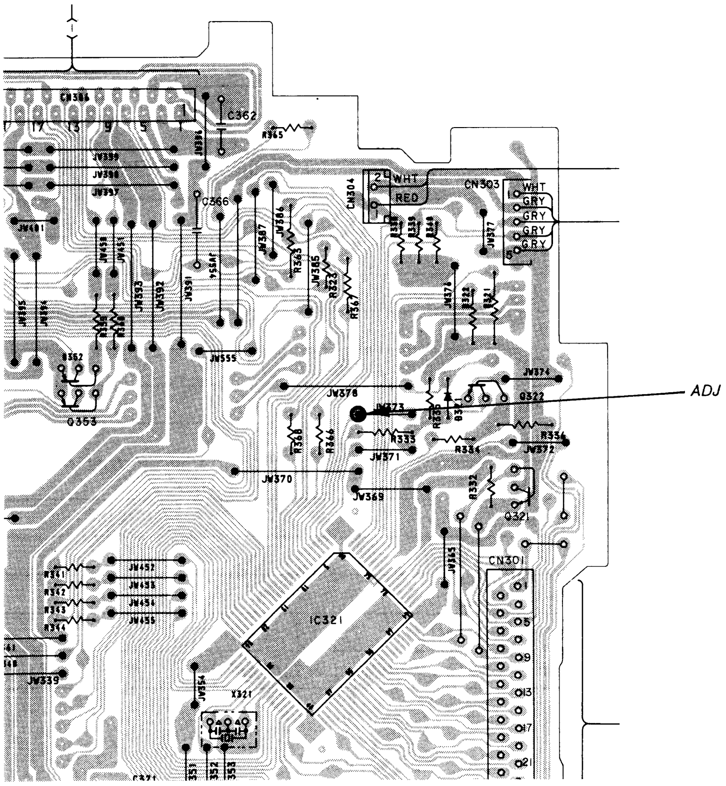
2. Turned power switch ON.
3. Confirm that reading on frequency counter is 4.3218MHz.

Adjustment Location :

[BD BOARD] – Conductor side –


VC
FE
FEI
TE
TEI
RFO
PLCK
M101 SPINDLE MOTOR
S101 LIMIT
M102 SLED MOTOR
IC101
IC103
1-647-340-
31

[CD MAIN BOARD] – Conductor side –


ADJ
CN304
CN303
CN301
IC321
X321
Q322
Q321
Q353
WHT
RED
GRY

SECTION 4
EXPLANATION OF IC TERMINALS

IC205 M50941-712SP (TC MAIN BOARD)

<table>
<tr><th>Pin No.</th><th>Pin name</th><th>I/O</th><th>Description</th></tr>
<tr><td>1</td><td>VREF</td><td>–</td><td>Standard voltage 5V.</td></tr>
<tr><td>2</td><td>METER L</td><td>I</td><td>Meter L-CH input.</td></tr>
<tr><td>3</td><td>METER R</td><td>I</td><td>Meter R-CH input.</td></tr>
<tr><td>4</td><td>KEY 1</td><td>I</td><td>Key input.</td></tr>
<tr><td>5</td><td>KEY 2</td><td>I</td><td>Key input.</td></tr>
<tr><td>6</td><td>B METAL</td><td>I</td><td>Metal tape detection at deck B. "L" : Metal claw proof</td></tr>
<tr><td>7</td><td>B LSW</td><td>I</td><td>
<table>
<tr><th colspan="3">Switch status ON··· Available
OFF··· Not Available</th><th rowspan="2">Input Voltage</th></tr>
<tr><th>REC A</th><th>REC B</th><th>HALF</th></tr>
<tr><td>OFF</td><td>OFF</td><td>OFF</td><td>5V</td></tr>
<tr><td>ON</td><td>OFF</td><td>ON</td><td>3.9V</td></tr>
<tr><td>OFF</td><td>OFF</td><td>ON</td><td>2.8V</td></tr>
<tr><td>ON</td><td>ON</td><td>ON</td><td>2V</td></tr>
<tr><td>OFF</td><td>ON</td><td>ON</td><td>1V</td></tr>
</table>
</td></tr>
<tr><td>8</td><td>A SHUT</td><td>I</td><td>S-side reel rotation detection at deck A.</td></tr>
<tr><td>9</td><td>B SHUT</td><td>I</td><td>S-side reel rotation detection at deck B.</td></tr>
<tr><td>10</td><td>VER SELECT</td><td>I</td><td>Reverse/1way. "L" : Reverse</td></tr>
<tr><td>11</td><td>MOT H/$\overline{\mathrm{L}}$</td><td>O</td><td>Tape speed selector. "L" : Normal, "H" : High</td></tr>
<tr><td>12</td><td>A RM+</td><td>O</td><td>Reel motor (+) output at deck A. "H" : FF</td></tr>
<tr><td>13</td><td>A RM –</td><td>O</td><td>Reel motor (–) output at deck A. "H" : REW</td></tr>
<tr><td>14</td><td>B RM+</td><td>O</td><td>Reel motor (+) output at deck B. "H" : FF</td></tr>
<tr><td>15</td><td>B RM –</td><td>O</td><td>Reel motor (–) output at deck B. "H" : REW</td></tr>
<tr><td>16</td><td>RELAY $\overline{\mathrm{ON}}$/OFF</td><td>O</td><td>Recording/play selector at deck B. "L" : Recording</td></tr>
<tr><td>17</td><td>BIAS $\overline{\mathrm{ON}}$/OFF</td><td>O</td><td>Bias ON/OFF at deck B. "H" : ON</td></tr>
<tr><td>18</td><td>A/$\overline{\mathrm{B}}$</td><td>O</td><td>Deck A/Deck B play selector, at deck B. "H" : A-deck</td></tr>
<tr><td>19</td><td>$\overline{\mathrm{REC}}$/PB</td><td>O</td><td>Recording/play selector for Dolby IC. "H" : Play</td></tr>
<tr><td>20</td><td>EQ H/$\overline{\mathrm{L}}$</td><td>O</td><td>Normal/High selector for recording equalizer. "L" : Normal</td></tr>
<tr><td>21</td><td>REC $\overline{\mathrm{MUTE}}$</td><td>O</td><td>Recording Mute ON/OFF. "L" : ON</td></tr>
<tr><td>22</td><td>L $\overline{\mathrm{MUTE}}$</td><td>O</td><td>Line Mute ON/OFF. "L" : ON</td></tr>
<tr><td>23</td><td>P OUT</td><td>–</td><td>Not used.</td></tr>
<tr><td>24</td><td>P IN</td><td>I</td><td>Power switch input. "L" : OFF</td></tr>
<tr><td>25</td><td>SIRCS</td><td>I</td><td>SIRCS signal input.</td></tr>
<tr><td>26</td><td>CN-Vss</td><td>–</td><td>GND.</td></tr>
<tr><td>27</td><td>RESET</td><td>I</td><td>RESET singnal input.</td></tr>
<tr><td>28</td><td>X-IN</td><td>I</td><td>Oscillation terminal.</td></tr>
<tr><td>29</td><td>X-OUT</td><td>O</td><td>Oscillation terminal. (4MHz)</td></tr>
<tr><td>30</td><td>XC-IN</td><td>–</td><td>Not used.</td></tr>
<tr><td>31</td><td>XC-OUT</td><td>–</td><td>Not used.</td></tr>
<tr><td>32</td><td>Vss</td><td>–</td><td>GND.</td></tr>
<tr><td>33</td><td>–</td><td>–</td><td>Not used.</td></tr>
<tr><td>34</td><td>$\overline{\mathrm{TEST}}$</td><td>I</td><td>Test mode selector. "L" : Tese mode</td></tr>
<tr><td>35</td><td>B STOP SW</td><td>I</td><td>Mechanism stop switch input for deck B. "H" : STOP</td></tr>
</table>

Pin No.	Pin name	I/O	Description
36	A STOP SW	I	Mechanism stop switch input for deck A. "H" : STOP
37	A HALF	I	Half pawl input for deck A. "L" : Available
38	VP	I	Pull-down voltage input for fluorescent (FL) tube.
39	B CM	O	Capatan motor ON/OFF for deck B. "H" : ON
40	A CM	O	Capatan motor ON/OFF for deck A. "H" : ON
41 – 62	7G – P15	O	Fluorescent (FL) tube output.
63	AVcc	–	Analog power input.
64	Vcc	–	Power.

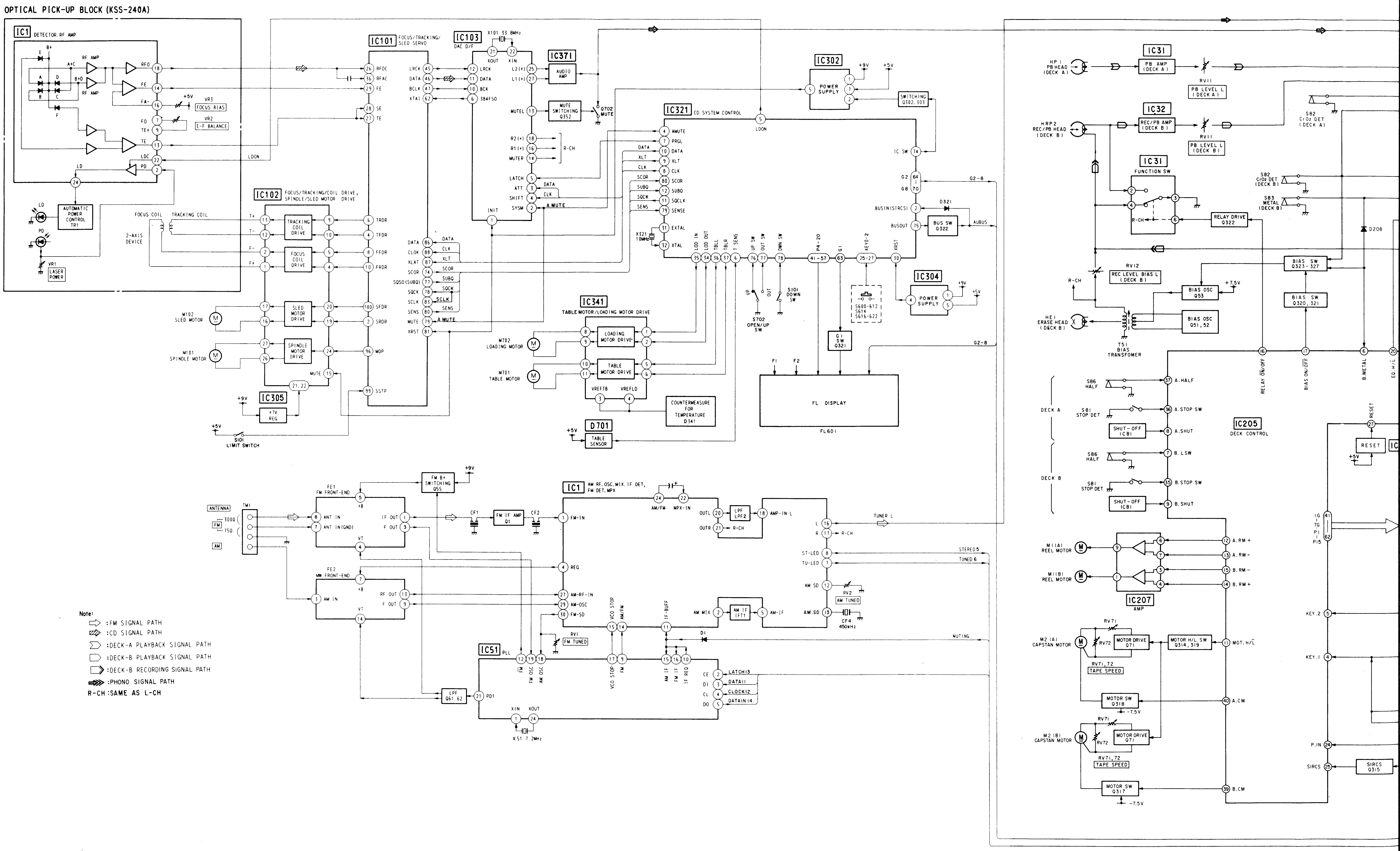
IC401 μPD78042GF-075-3B9 (DISPLAY BOARD)

Pin No.	Pin name	I/O	Description
1	G7	O	Fluorescent display tube grid 7.
2	G6	O	Fluorescent display tube grid 6.
3	G5	O	Fluorescent display tube grid 5.
4	G4	O	Fluorescent display tube grid 4.
5	G3	O	Fluorescent display tube grid 3.
6	G2	O	Fluorescent display tube grid 2.
7	G1	O	Fluorescent display tube grid 1.
8	+5V	–	5V.
9	SIRCS	I	Remote control receive.
10	DECK-PWR	O	Deck power control.
11	VB	O	Video IC control B.
12	VA	O	Video IC control A.
13	LED1 WOOFER	O	Super woofer LED.
14	LED2 LEVEL	O	Level LED.
15	LED3 TONE	O	Tone LED.
16	P-RY	O	Power relay control.
17	RESET	I	Reset signal input.
18	SPE-B	O	Band switching of spectrum analyzer circuit.
19	SPE-A	O	Band switching of spectrum analyzer circuit.
20	G	–	GND.
21	DATA	O	Amplifier IC control data.
22	CLK	O	Amplifier IC control clock.
23	CHECK	I	Model identification check input.
24	SPE-2	I	Spectrum analyzer level input 2.
25	SPE-1	I	Spectrum analyzer level input 1.
26	KEY-3	I	Input of key board switch 3.
27	KEY-2	I	Input of key board switch 2.
28	KEY-1	I	Input of key board switch 1.
29	+5V	–	5V.
30	+5V	–	5V.
31	BUS-IN	I	AU bus input.
32	XT2	–	Not used.
33	G	–	GND.

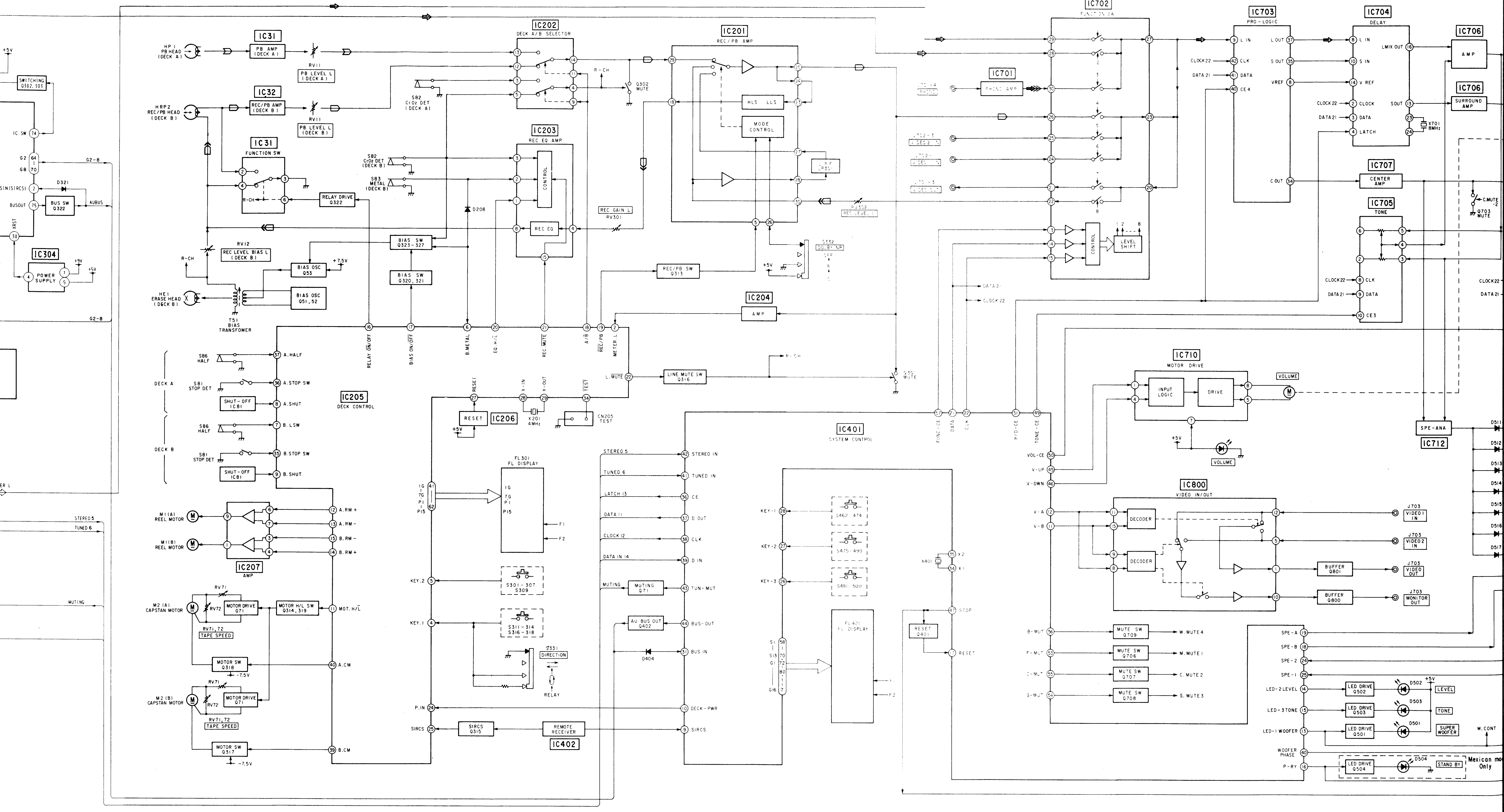
Pin No.	Pin name	I/O	Description
34	X1	–	High frequency oscillator connect pin.
35	X2	–	High frequency oscillator connect pin.
36	CE	O	Tuner IC control CE output.
37	DOUT	O	Tuner IC control data output.
38	CLK	O	Tuner IC control clock output.
39	DIN	I	Tuner IC control data output.
40	WOOFER-PHASE	O	Super woofer phase.
41	TUNED	I	Tuner tuned input.
42	STEREO	I	Tuner stereo input.
43	TUN-MUT	O	Tuner mute output.
44	BUS-OUT	O	AU bus output.
45	V-UP	O	Volume up.
46	V-DWN	O	Volume down.
47	STOP	I	Stop.
48	G	–	GND.
49	TONE-CE	O	Tone IC CE.
50	VOL-CE	O	Electric volume IC CE.
51	P/D-CE	O	Pro logic/delay IC CE.
52	+5V	–	5V.
53	F-MUT	O	Front mute.
54	S-MUT	O	Surround mute.
55	C-MUT	O	Center mute.
56	B-MUT	O	Woofer mute.
57	FUNC-CE	O	Function IC CE.
58	S13	O	Fluorescent display tube segment 13.
59	S12	O	Fluorescent display tube segment 12.
60	S11	O	Fluorescent display tube segment 11.
61	S10	O	Fluorescent display tube segment 10.
62	S9	O	Fluorescent display tube segment 9.
63	S8	O	Fluorescent display tube segment 8.
64	S7	O	Fluorescent display tube segment 7.
65	S6	O	Fluorescent display tube segment 6.
66	S5	O	Fluorescent display tube segment 5.
67	S4	O	Fluorescent display tube segment 4.
68	S3	O	Fluorescent display tube segment 3.
69	S2	O	Fluorescent display tube segment 2.
70	S1	O	Fluorescent display tube segment 1.
71	– 30V	–	– 30V.
72	G16	O	Fluorescent display tube grid 16.
73	G15	O	Fluorescent display tube grid 15.
74	G14	O	Fluorescent display tube grid 14.
75	G13	O	Fluorescent display tube grid 13.
76	G12	O	Fluorescent display tube grid 12.
77	G11	O	Fluorescent display tube grid 11.
78	G10	O	Fluorescent display tube grid 10.
79	G9	O	Fluorescent display tube grid 9.
80	G8	O	Fluorescent display tube grid 8.

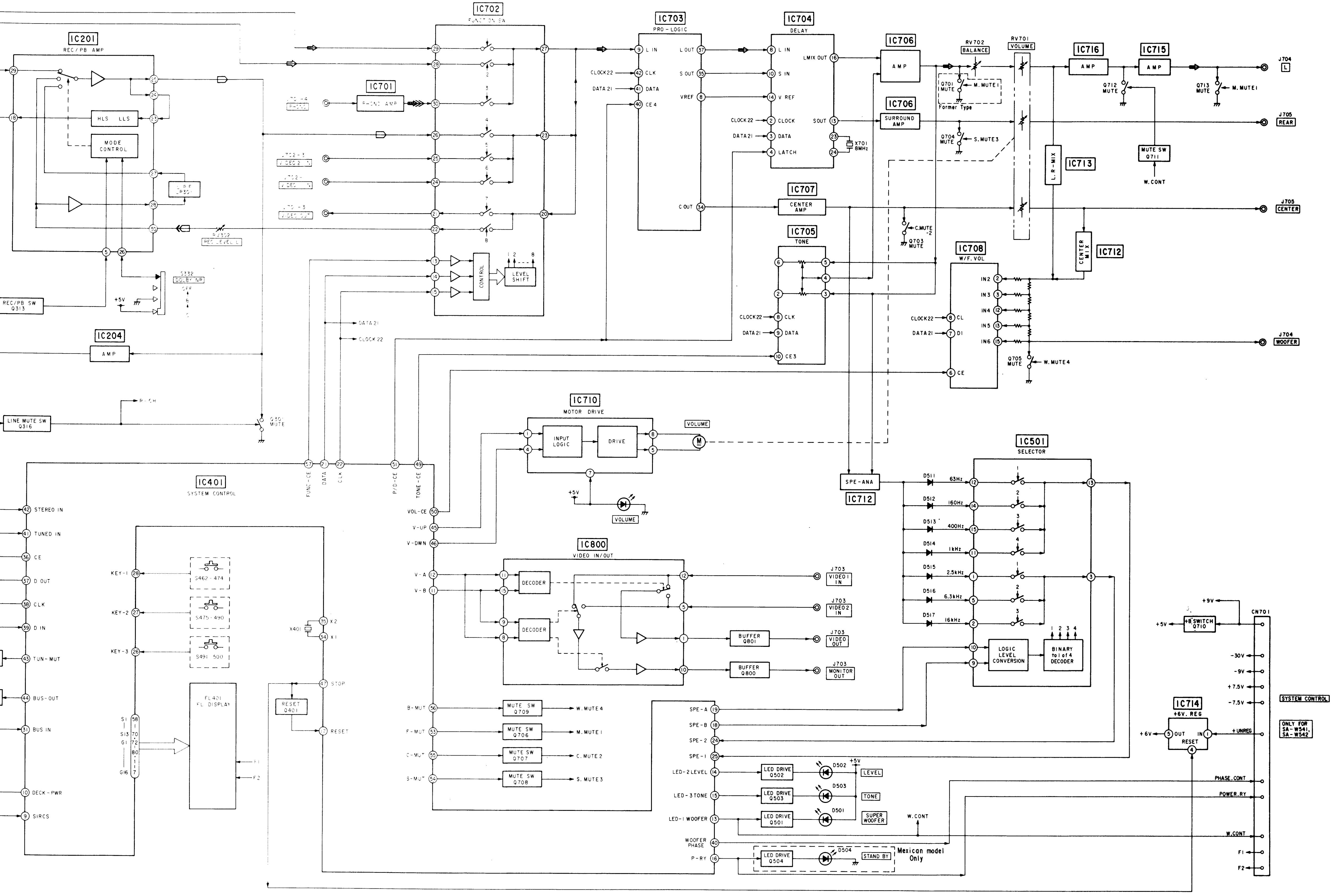
SECTION 5
DIAGRAMS

5-1. BLOCK DIAGRAM

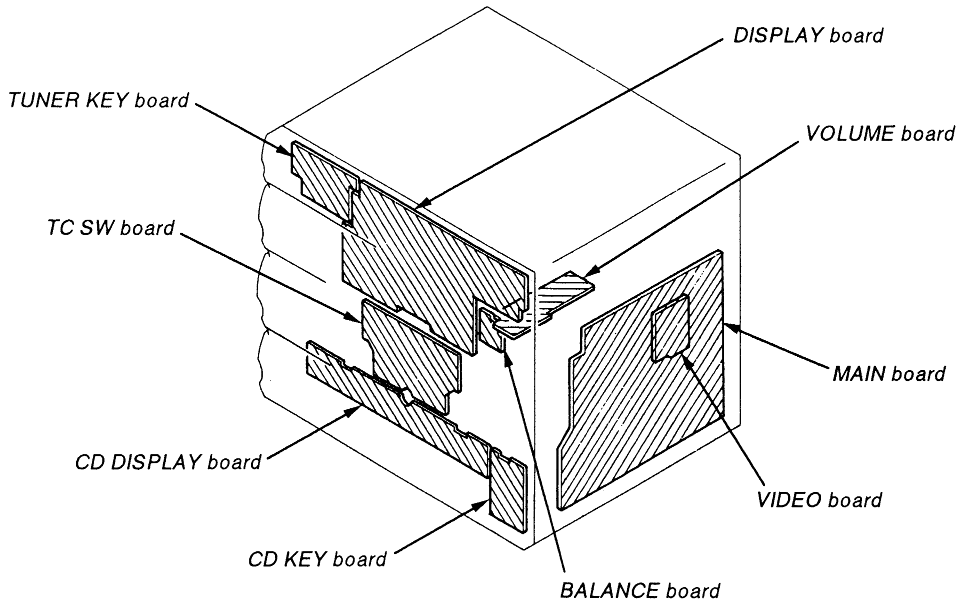

OPTICAL PICK-UP BLOCK (KSS-240A)
IC1 DETECTOR, RF AMP
B+
E
A+C
RF AMP
B+D
A
D
B
C
F
RFO
FE
FA-
FO
TE+
TE
LDC
LD
PD
+5V
VR3 FOCUS BIAS
VR2 E-F BALANCE
LDON
AUTOMATIC POWER CONTROL TR1
VR1 LASER POWER
FOCUS COIL
TRACKING COIL
2-AXIS DEVICE
IC101 FOCUS/TRACKING/SLED SERVO
RFDC
RFAC
SE
TE
LRCK
DATA
BCLK
XTAI
IC102 FOCUS/TRACKING/COIL DRIVE, SPINDLE/SLED MOTOR DRIVE
T+
T-
F-
F+
TRACKING COIL DRIVE
FOCUS COIL DRIVE
SLED MOTOR DRIVE
SPINDLE MOTOR DRIVE
TRDR
TFDR
FFDR
FRDR
SFDR
SRDR
MDP
SSTP
MUTE
M102 SLED MOTOR
M101 SPINDLE MOTOR
IC305 +7V REG
+9V
+5V
S101 LIMIT SWITCH
DATA
CLOK
XLAT
SCOR
SQSO(SUBQ)
SQCK
SCLK
SENS
MUTE
XRST
CLK
XLT
SUBQ
A MUTE
IC103 DAC D/F
X101 33.8MHz
XOUT
XIN
LRCK
BCK
384FSO
L2(+)
L1(+)
MUTEL
R2(+)
R1(+)
MUTER
R-CH
LATCH
ATT
SHIFT
SYSM
INIT
IC371 AUDIO AMP
MUTE SWITCHING Q352
Q702 MUTE
IC302 POWER SUPPLY
+9V
+5V
SWITCHING Q302, 303
IC321 CD SYSTEM CONTROL
LDON
AMUTE
PRGL
SQCLK
SENSE
EXTAL
XTAL
X321 10MHz
IC SW
G2
G8
G2-8
BUSIN(SIRCS)
D321
BUSOUT
BUS SW Q322
AUBUS
LOD IN
LOD OUT
TBLL
TBLR
T SENS
UP SW
OUT SW
DWN SW
P4-20
G1
KEY0-2
XRST
UP
OUT
S702 OPEN/UP SW
S101 DOWN SW
S600-612 S614 S616-622
G1 SW Q321
IC304 POWER SUPPLY
F1
F2
FL DISPLAY
FL601
IC341 TABLE MOTOR/LOADING MOTOR DRIVE
LOADING MOTOR DRIVE
TABLE MOTOR DRIVE
VREFTB
VREFLD
M702 LOADING MOTOR
M701 TABLE MOTOR
COUNTERMEASURE FOR TEMPERATURE D341
D701 TABLE SENSOR
ANTENNA
TM1
FM
300Ω
75Ω
AM
FE1 FM FRONT-END
ANT IN
ANT IN(GND)
IF OUT
F OUT
+B
VT
FM B+ SWITCHING Q55
CF1
FM IF AMP Q1
CF2
FE2 MW FRONT-END
AM IN
RF OUT
LPF Q61, 62
IC1 AM RF, OSC, MIX, IF DET, FM DET, MPX
FM-IN
REG
AM-RF-IN
AM-OSC
FM-SD
AM/FM
MPX-IN
OUTL
OUTR
LPF LPF2
AMP-IN L
VCO STOP
IF-BUFF
AM MIX
AM IF IFT1
AM-IF
L
R
TUNER L
ST-LED
TU-LED
AM.SD
RV2 AM TUNED
CF4 450kHz
STEREO 5
TUNED 6
MUTING
D1
RV1 FM TUNED
IC51 PLL
FM OSC
AM OSC
AM IF
FM IF
IF REQ
PD1
XIN
XOUT
X51 7.2MHz
CE
DI
CL
DO
LATCH 13
DATA 11
CLOCK 12
DATAIN 14
HP1 PB HEAD (DECK A)
IC31 PB AMP (DECK A)
RV11 PB LEVEL L (DECK A)
HRP2 REC/PB HEAD (DECK B)
IC32 REC/PB AMP (DECK B)
RV11 PB LEVEL L (DECK B)
S82 CrO2 DET (DECK A)
IC31 FUNCTION SW
R-CH
RELAY DRIVE Q322
S82 CrO2 DET (DECK B)
S83 METAL (DECK B)
D208
RV12 REC LEVEL BIAS L (DECK B)
BIAS SW Q323-327
BIAS OSC Q53
+7.5V
BIAS SW Q320, 321
HE1 ERASE HEAD (DECK B)
BIAS OSC Q51, 52
T51 BIAS TRANSFOMER
RELAY ON/OFF
BIAS ON/OFF
B.METAL
EQ.H/L
DECK A
S86 HALF
A.HALF
S81 STOP DET
A.STOP SW
SHUT-OFF IC81
A.SHUT
DECK B
B.LSW
B.STOP SW
B.SHUT
IC205 DECK CONTROL
RESET
M1(A) REEL MOTOR
M1(B) REEL MOTOR
IC207 AMP
A.RM+
A.RM-
B.RM-
B.RM+
M2(A) CAPSTAN MOTOR
M2(B) CAPSTAN MOTOR
RV71
RV72
MOTOR DRIVE Q71
RV71, 72 TAPE SPEED
MOTOR H/L SW Q314, 319
MOT.H/L
MOTOR SW Q318
MOTOR SW Q317
-7.5V
A.CM
B.CM
1G-7G P1-P15
KEY.2
KEY.1
P.IN
SIRCS
SIRCS Q315

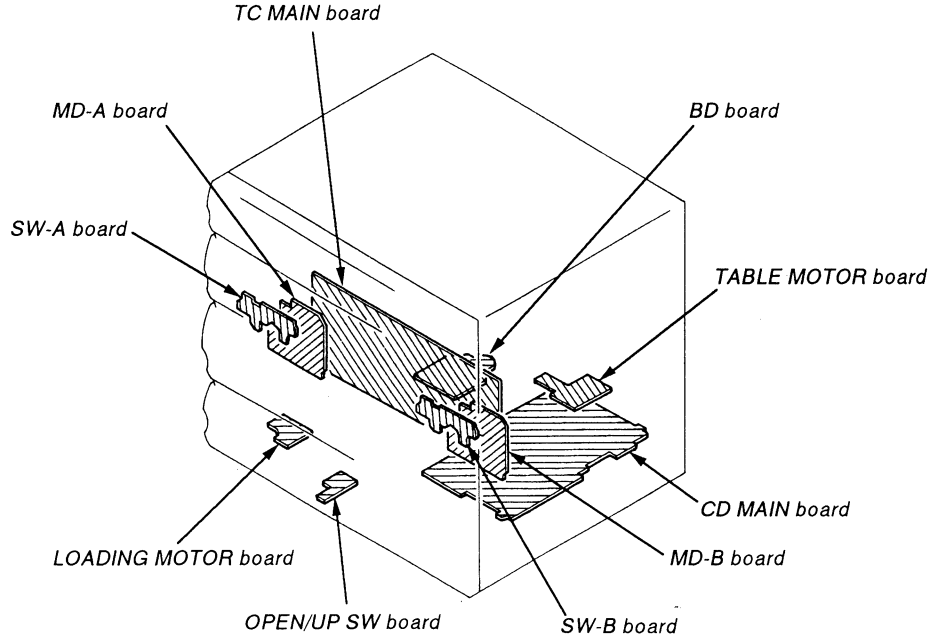
Note:
- ⇨ :FM SIGNAL PATH
- ▨ :CD SIGNAL PATH
- :DECK-A PLAYBACK SIGNAL PATH
- :DECK-B PLAYBACK SIGNAL PATH
- :DECK-B RECORDING SIGNAL PATH
- :PHONO SIGNAL PATH
- R-CH :SAME AS L-CH


IC31
PB AMP (DECK A)
HP 1 PB HEAD (DECK A)
RV11
PB LEVEL L (DECK A)
IC32
REC/PB AMP (DECK B)
HRP2 REC/PB HEAD (DECK B)
RV11
PB LEVEL L (DECK B)
IC31
FUNCTION SW
RELAY DRIVE Q322
R-CH
RV12
REC LEVEL BIAS L (DECK B)
BIAS OSC Q53
BIAS OSC Q51, 52
+7.5V
HE1 ERASE HEAD (DECK B)
T51 BIAS TRANSFOMER
IC202
DECK A/B SELECTOR
Q302 MUTE
S82 CrO2 DET (DECK A)
S82 CrO2 DET (DECK B)
S83 METAL (DECK B)
IC203
REC EQ AMP
CONTROL
REC EQ
D208
BIAS SW Q323-327
BIAS SW Q320, 321
REC GAIN L RV301
IC201
REC/PB AMP
HLS LLS
MODE CONTROL
LPF
REC/PB SW Q313
+5V
S332 DOLBY NR OFF
RV302 REC LEVEL L
IC204
AMP
RELAY ON/OFF
BIAS ON/OFF
B.METAL
EQ H/L
REC MUTE
A/B
REC/PB
METER L
L. MUTE
LINE MUTE SW Q316
R-CH
Q301 MUTE
SWITCHING Q302, 303
IC SW
G2
G8
G2-B
SIN(SIRCS)
D321
BUS SW Q322
BUSOUT
AUBUS
XRST
IC304
POWER SUPPLY
+9V
+5V
G2-B
DECK A
DECK B
S86 HALF
S81 STOP DET
SHUT-OFF IC81
A.HALF
A.STOP SW
A.SHUT
B.LSW
B.STOP SW
B.SHUT
IC205
DECK CONTROL
STEREO 5
TUNED 6
M1(A) REEL MOTOR
M1(B) REEL MOTOR
A.RM+
A.RM-
B.RM-
B.RM+
IC207
AMP
MUTING
RV71
M2 (A) CAPSTAN MOTOR
RV72
MOTOR DRIVE Q71
RV71, 72
TAPE SPEED
MOTOR H/L SW Q314, 319
MOT. H/L
MOTOR SW Q318
-7.5V
A.CM
M2 (B) CAPSTAN MOTOR
MOTOR SW Q317
B.CM
RESET
IC206
+5V
X-IN
X-OUT
X201 4MHz
TEST
CN205 TEST
FL301 FL DISPLAY
1G 7G P1 P15
F1
F2
KEY.2
KEY.1
S301-307 S309
S311-314 S316-318
S331 DIRECTION
RELAY
P.IN
SIRCS
SIRCS Q315
REMOTE RECEIVER
IC402
IC401
SYSTEM CONTROL
STEREO IN
TUNED IN
LATCH 13
CE
DATA 11
D OUT
CLOCK 12
CLK
DATA IN 14
D IN
MUTING
MUTING Q71
TUN-MUT
AU BUS OUT Q402
BUS-OUT
D404
BUS IN
DECK-PWR
KEY-1
KEY-2
KEY-3
S462-474
S475-490
S491-500
X401
X2
X1
STOP
RESET Q401
FL401 FL DISPLAY
S1 S13 G1 G16
FUNC-CE
DATA
CLK
P/D-CE
TONE-CE
DATA 21
CLOCK 22
IC702
FUNCTION SW
IC701
PHONO AMP
CONTROL
LEVEL SHIFT
IC703
PRO-LOGIC
L IN
L OUT
CLOCK22
CLK
S OUT
DATA 21
DATA
VREF
CE4
C OUT
IC704
DELAY
L IN
LMIX OUT
S IN
V REF
CLOCK
SOUT
LATCH
X701 8MHz
IC706
AMP
IC706
SURROUND AMP
IC707
CENTER AMP
IC705
TONE
CLK
DATA
CE3
C.MUTE
Q703 MUTE
CLOCK22
DATA21
IC710
MOTOR DRIVE
INPUT LOGIC
DRIVE
VOLUME
+5V
VOL-CE
V-UP
V-DOWN
SPE-ANA
IC712
D511
D512
D513
D514
D515
D516
D517
IC800
VIDEO IN/OUT
V-A
V-B
DECODER
DECODER
BUFFER Q801
BUFFER Q800
J703 VIDEO1 IN
J703 VIDEO2 IN
J703 VIDEO OUT
J703 MONITOR OUT
B-MUT
MUTE SW Q709
W.MUTE4
F-MUT
MUTE SW Q706
M.MUTE1
C-MUT
MUTE SW Q707
C.MUTE2
S-MUT
MUTE SW Q708
S.MUTE3
SPE-A
SPE-B
SPE-2
SPE-1
LED-2 LEVEL
LED DRIVE Q502
D502
+5V
LEVEL
LED-3 TONE
LED DRIVE Q503
D503
TONE
LED-1 WOOFER
LED DRIVE Q501
D501
SUPER WOOFER
W.CONT
WOOFER PHASE
P-RY
LED DRIVE Q504
D504
STAND BY
Mexican mo
Only


IC201
REC/PB AMP
HLS LLS
MODE CONTROL
REC/PB SW Q313
IC204
AMP
LINE MUTE SW Q316
IC702
FUNCTION SW
IC701
PHONO AMP
CONTROL
LEVEL SHIFT
DATA 21
CLOCK 22
IC703
PRO-LOGIC
L IN
CLK
DATA
CE 4
L OUT
S OUT
VREF
C OUT
CLOCK22
DATA 21
IC704
DELAY
L IN
S IN
V REF
CLOCK
DATA
LATCH
LMIX OUT
SOUT
X701 8MHz
IC706
AMP
IC706
SURROUND AMP
IC707
CENTER AMP
IC705
TONE
CE 3
RV702
BALANCE
RV701
VOLUME
Q701 MUTE
M. MUTE1
Former Type
Q704 MUTE
S. MUTE3
C.MUTE-2
Q703 MUTE
IC716
AMP
IC715
AMP
Q712 MUTE
Q713 MUTE
M. MUTE1
MUTE SW Q711
W. CONT
L.R-MIX
IC713
CENTER MIX
IC712
IC708
W/F. VOL
IN2
IN3
IN4
IN5
IN6
CL
DI
CE
Q705 MUTE
W. MUTE4
J704 L
J705 REAR
J705 CENTER
J704 WOOFER
IC710
MOTOR DRIVE
INPUT LOGIC
DRIVE
VOLUME
M
+5V
IC401
SYSTEM CONTROL
FUNC-CE
DATA
CLK
P/D-CE
TONE-CE
VOL-CE
V-UP
V-DWN
STEREO IN
TUNED IN
CE
D OUT
CLK
D IN
TUN-MUT
BUS-OUT
BUS IN
DECK-PWR
SIRCS
KEY-1
KEY-2
KEY-3
S462-474
S475-490
S491-500
X401
X2
X1
STOP
RESET
RESET Q401
FL401
FL DISPLAY
S1
S13
G1
G16
F1
F2
IC800
VIDEO IN/OUT
V-A
V-B
DECODER
DECODER
BUFFER Q801
BUFFER Q800
J703 VIDEO1 IN
J703 VIDEO2 IN
J703 VIDEO OUT
J703 MONITOR OUT
B-MUT
F-MUT
C-MUT
S-MUT
MUTE SW Q709
MUTE SW Q706
MUTE SW Q707
MUTE SW Q708
W. MUTE 4
M. MUTE 1
C. MUTE 2
S. MUTE 3
SPE-ANA
IC712
IC501
SELECTOR
D511 63Hz
D512 160Hz
D513 400Hz
D514 1kHz
D515 2.5kHz
D516 6.3kHz
D517 16kHz
LOGIC LEVEL CONVERSION
BINARY 1 of 4 DECODER
SPE-A
SPE-B
SPE-2
SPE-1
LED-2 LEVEL
LED-3 TONE
LED-1 WOOFER
WOOFER PHASE
P-RY
LED DRIVE Q502
LED DRIVE Q503
LED DRIVE Q501
LED DRIVE Q504
D502
D503
D501
D504
LEVEL
TONE
SUPER WOOFER
STAND BY
W. CONT
Mexican model Only
+9V
+5V
+B SWITCH Q710
CN701
-30V
-9V
+7.5V
-7.5V
SYSTEM CONTROL
ONLY FOR SA-W541, SA-W542
IC714
+6V. REG
+6V
OUT
IN
RESET
+UNREG
PHASE CONT
POWER.RY
W.CONT
F1
F2

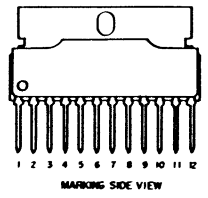
• CIRCUIT BOARD LOCATION


DISPLAY board
TUNER KEY board
VOLUME board
TC SW board
MAIN board
CD DISPLAY board
VIDEO board
CD KEY board
BALANCE board

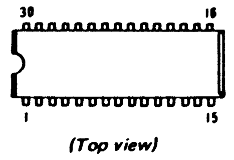

TC MAIN board
MD-A board
BD board
SW-A board
TABLE MOTOR board
CD MAIN board
LOADING MOTOR board
MD-B board
OPEN/UP SW board
SW-B board

• SEMICONDUCTOR LEAD LAYOUTS

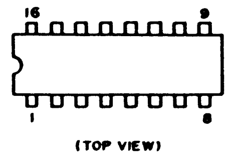
BA6191


1 2 3 4 5 6 7 8 9 10 11 12
MARKING SIDE VIEW

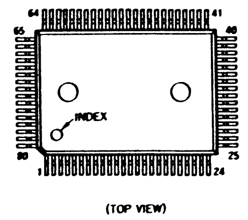
CXA1331S
LA2785
LC7822


30
16
1
15
(Top view)

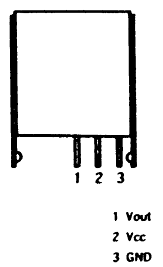
CXA1578A
MC14052BCP
SN761200N
TC9184P
μPD4053BC


16
9
1
8
(TOP VIEW)

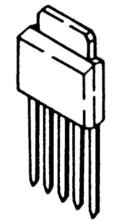
CXP82316-038Q
μPD78042GF-075-3B9


64
41
65
40
INDEX
80
25
1
24
(TOP VIEW)

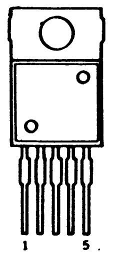
GP1U52XB


1 2 3
1 Vout
2 Vcc
3 GND

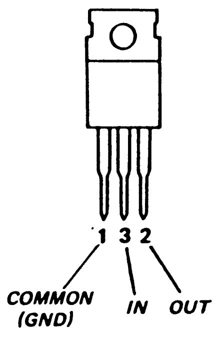
L78LR05D



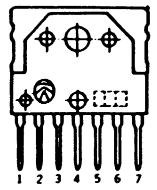
L78MR06



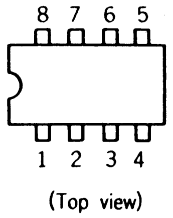
LA1835
LC7218-ST
LC7824


1 3 2
COMMON (GND)
IN
OUT

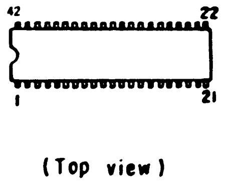
LA5602



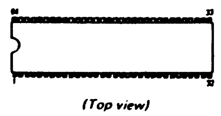
LB1639
μPC4558C
μPC4570G2


8 7 6 5
1 2 3 4
(Top view)

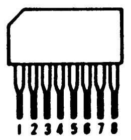
LV1010


42
22
1
21
(Top view)

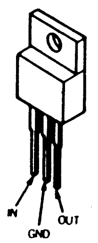
M50941-712SP



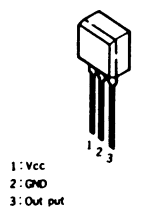
M5218AL



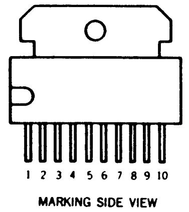
M5F78M07L



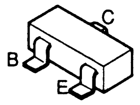
PST572E


1 2 3
1 : Vcc
2 : GND
3 : Out put

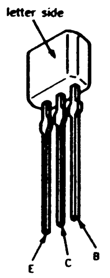
TA7272P


1 2 3 4 5 6 7 8 9 10
MARKING SIDE VIEW

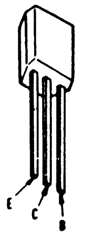
2SA1162-G



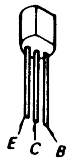
2SA1175-HEF
2SC2785-HFE
2SC3623A-LK


letter side
E C B

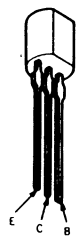
DTA124ES
DTA144ES
DTC114ES
DTC124ES
DTC144ES
2SC2669-OY
2SC403SP-51



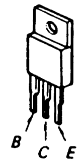
2SC2001TP-K1K2
2SC3112-B
2SD1616A-K



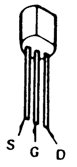
2SD1513K



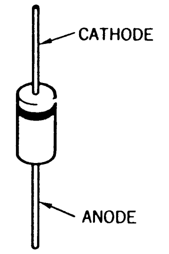
2SD2012



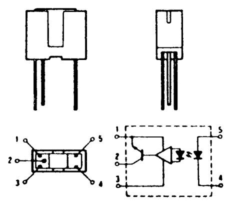
2SK246-GR3



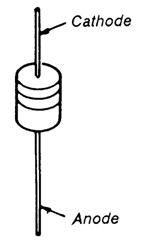
UZ-5.6BSB
UZP-15BB-TP
1N4148M
11ES2


CATHODE
ANODE

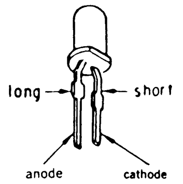
GP1A521



HZS6B1L


Cathode
Anode

SEL3210S-CD


long
short
anode
cathode

• SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.
D1	D - 5	Q1
D703	I - 8	Q2
D705	J - 8	Q55
D706	J - 10	Q61
D708	B - 3	Q62
D710	I - 4	Q71
D711	F - 3	Q702
		Q703
IC1	C - 7	Q704
IC51	B - 8	Q705
IC701	E - 10	
IC702	F - 10	Q706
IC703	F - 7	Q707
		Q708
IC704	F - 5	Q709
IC705	H - 3	Q710
IC706	G - 5	
IC707	H - 6	Q711
IC708	I - 4	Q712
		Q713
IC710	I - 17	Q752
IC712	G - 4	Q762
IC713	E - 4	
IC714	I - 8	Q763
IC715	F - 17	Q800
		Q801
IC716	G - 17	
IC800	B - 15	

Note:

- ○— : parts extracted from the c
- ░ : Pattern on the side whi
- Abbreviation
  CND : Canadian
  G : German
  MX : Mexican

GR3

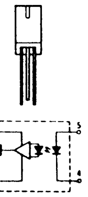
o

SB
B-TP

CATHODE

ANODE

21



1L

thode

ode

S-CD

— short

cathode

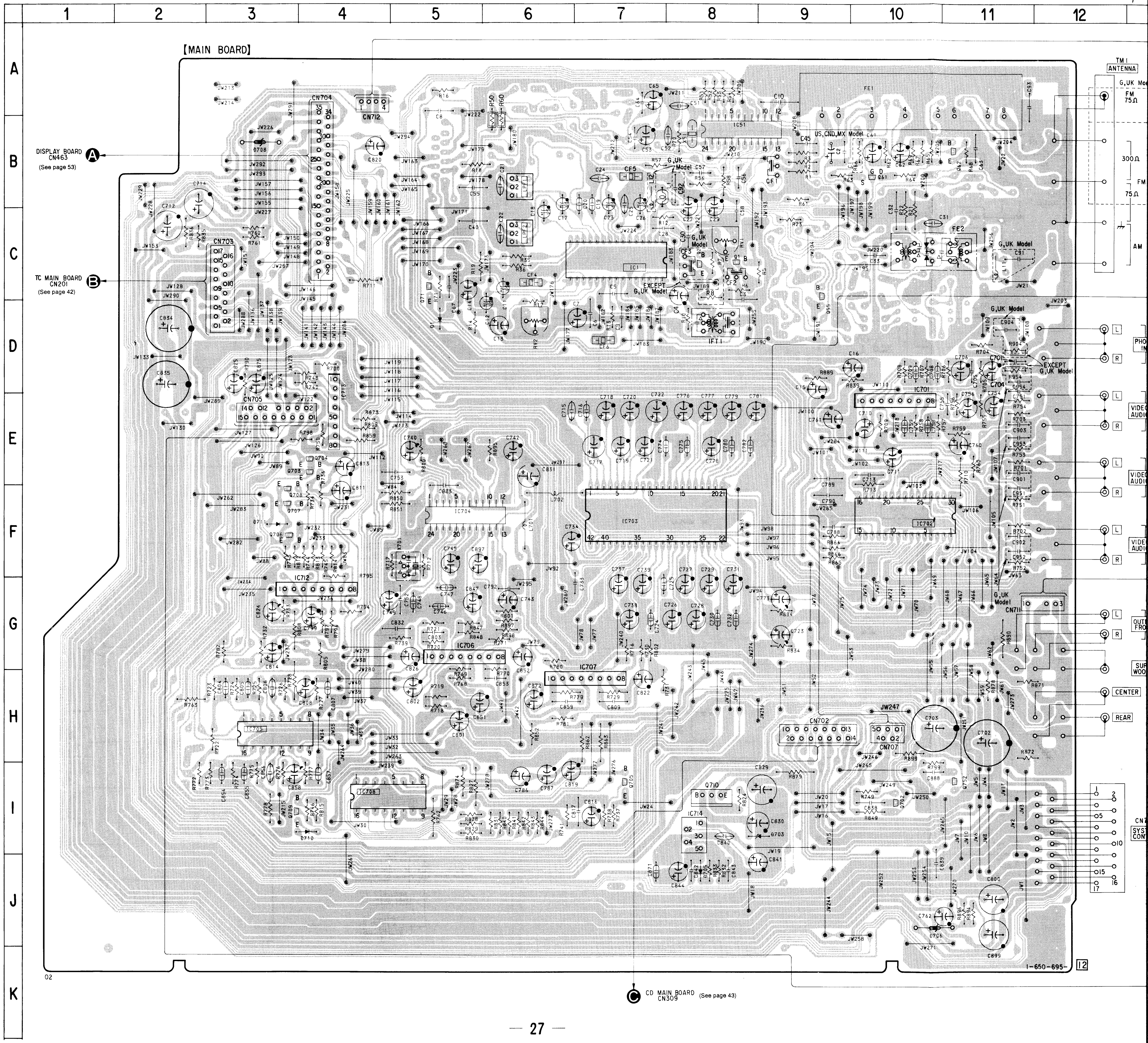
• SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.	Location
D1	D-5	Q1	C-8
D703	I-8	Q2	C-8
D705	J-8	Q55	C-9
D706	J-10	Q61	B-10
D708	B-3	Q62	B-10
D710	I-4	Q71	C-5
D711	F-3	Q702	I-10
		Q703	E-4
IC1	C-7	Q704	E-4
IC51	B-8	Q705	I-7
IC701	E-10		
IC702	F-10	Q706	F-3
IC703	F-7	Q707	F-3
		Q708	F-3
IC704	F-5	Q709	I-3
IC705	H-3	Q710	I-8
IC706	G-5		
IC707	H-6	Q711	J-17
IC708	I-4	Q712	F-18
		Q713	F-17
IC710	I-17	Q752	I-11
IC712	G-4	Q762	F-17
IC713	E-4		
IC714	I-8	Q763	E-16
IC715	F-17	Q800	C-15
		Q801	C-15
IC716	G-17		
IC800	B-15		

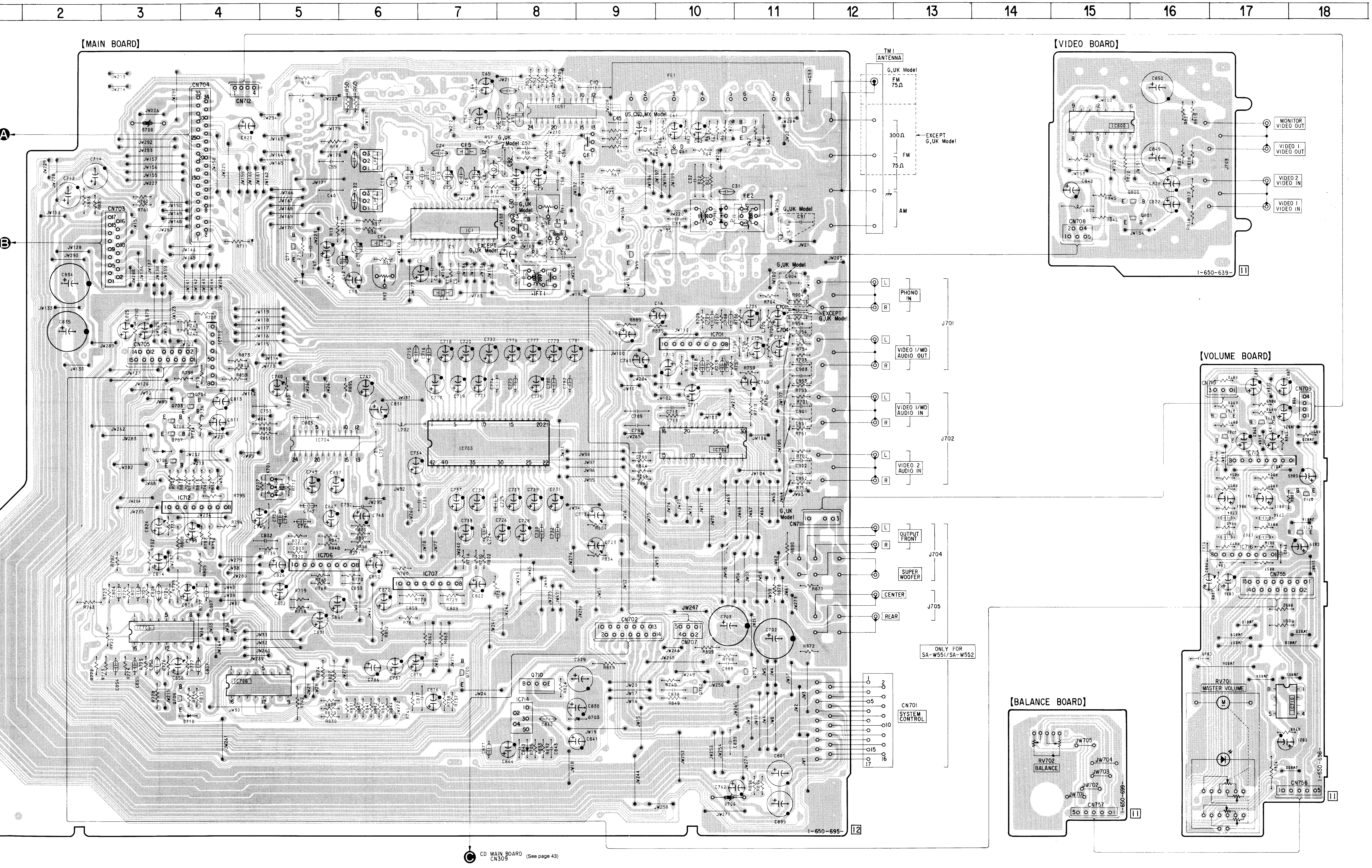
Note:

- ○— : parts extracted from the component side.
- ░░ : Pattern on the side which is seen.
- Abbreviation
  - CND : Canadian
  - G : German
  - MX : Mexican

5-2. PRINTED WIRING BOARDS – MAIN SECTION –


1
2
3
4
5
6
7
8
9
10
11
12
A
B
C
D
E
F
G
H
I
J
K
[MAIN BOARD]
DISPLAY BOARD CN463 (See page 53)
TC MAIN BOARD CN201 (See page 42)
CD MAIN BOARD CN309 (See page 43)
TM1 ANTENNA
G,UK Model
FM 75Ω
300Ω
AM
PHONES
VIDEO AUDIO
OUT FRONT
SUB WOOFER
CENTER
REAR
CN7 SYSTEM CONTROL
FE1
FE2
IC1
IC51
IC701
IC702
IC703
IC704
IC705
IC706
IC707
IC708
IC712
IC714
CN702
CN703
CN704
CN705
CN707
CN711
CN712
US,CND,MX Model
EXCEPT G,UK Model
1-650-695-12
02

WIRING BOARDS – MAIN SECTION –


2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
[MAIN BOARD]
A
B
CN704
CN712
CN703
CN705
IC1
IC51
FE1
FE2
IFT1
IC701
IC702
IC703
IC704
IC705
IC706
IC707
IC712
IC714
CN702
CN707
CN711
TM1
ANTENNA
G,UK Model
FM
75Ω
300Ω
EXCEPT
G,UK Model
FM
75Ω
AM
US,CND,MX Model
G,UK Model
PHONO IN
VIDEO 1/MD AUDIO OUT
VIDEO 1/MD AUDIO IN
VIDEO 2 AUDIO IN
J701
J702
L
R
OUTPUT FRONT
SUPER WOOFER
CENTER
REAR
J704
J705
ONLY FOR SA-W551/SA-W552
CN701
SYSTEM CONTROL
1-650-695- 12
C
CD MAIN BOARD CN309 (See page 43)
[VIDEO BOARD]
IC800
CN708
MONITOR VIDEO OUT
VIDEO 1 VIDEO OUT
VIDEO 2 VIDEO IN
VIDEO 1 VIDEO IN
1-650-639- 11
[VOLUME BOARD]
CN710
CN709
IC715
IC716
CN755
RV701
MASTER VOLUME
CN756
1-650-698 11
[BALANCE BOARD]
RV702
BALANCE
CN757
1-650-699 11

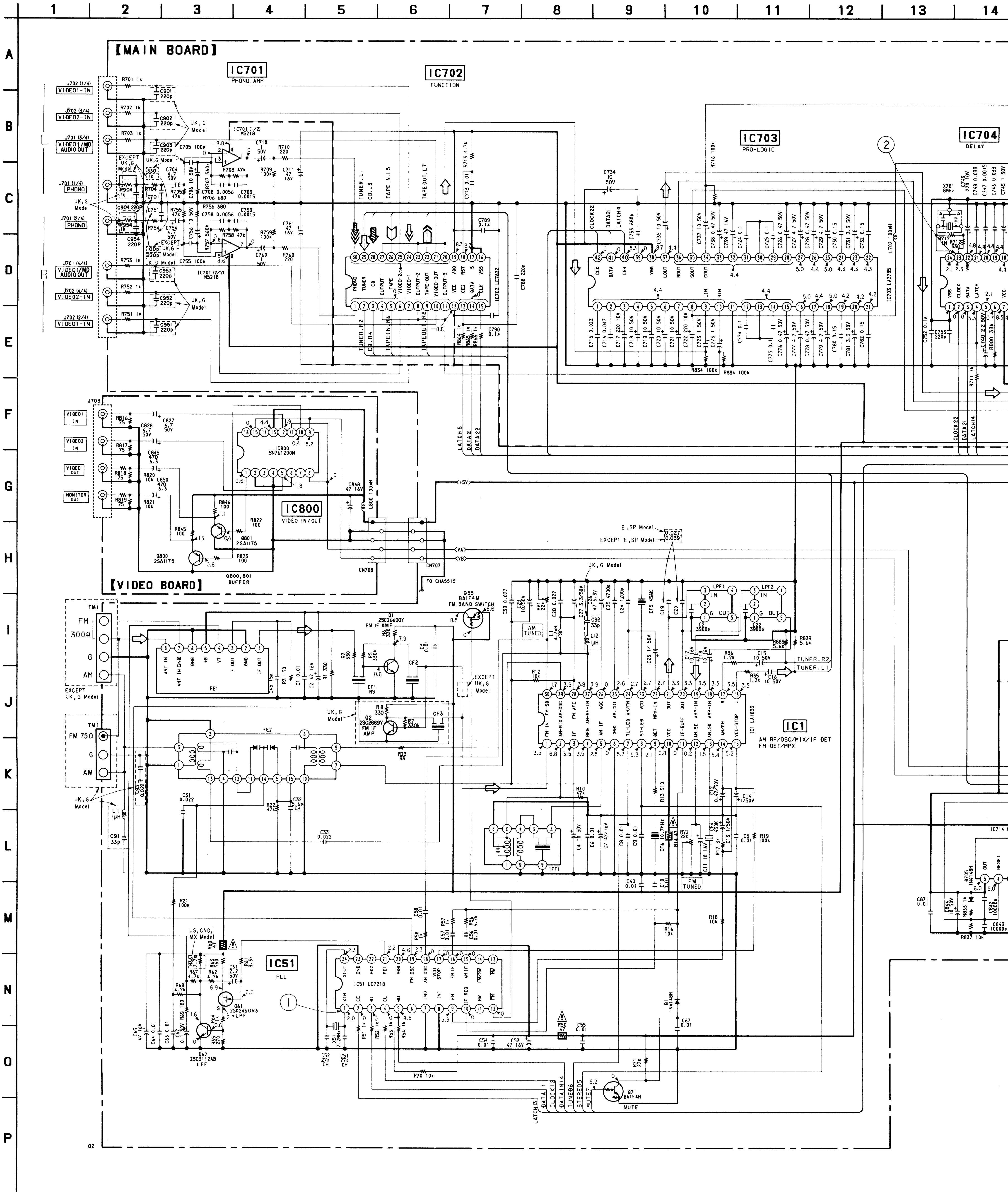
Note :

- All capacitors are in μ F unless otherwise noted. pF: μ μ F 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- ⊣▭⊢ : nonflammable resistor.

Note :	Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ▬▬ : B+ Line
- ▬ ▬ ▬ : B − Line
- ☐ : adjustment for repair.
- Voltage and waveforms are dc with respect to g
no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input impedar
Voltage variations may be noted due to normal
tolerances.
- Waveforms are taken with a oscilloscope.
Voltage variations may be noted due to normal
tolerances.
- Circled numbers refer to waveforms.

5-3. SCHEMATIC DIAGRAM − MAIN SECTION −



1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
【MAIN BOARD】
IC701
PHONO. AMP
IC702
FUNCTION
IC703
PRO-LOGIC
IC704
DELAY
J702 (1/4) VIDEO1-IN
J702 (3/4) VIDEO2-IN
J701 (3/4) VIDEO1/MD AUDIO OUT
J701 (1/4) PHONO
J701 (2/4) PHONO
J701 (4/4) VIDEO1/MD AUDIO OUT
J702 (4/4) VIDEO2-IN
J702 (2/4) VIDEO1-IN
L
R
UK,G Model
EXCEPT UK,G Model
IC701 (1/2) M5218
IC701 (2/2) M5218
TUNER.L1
CD.L3
TAPE IN.L5
TAPE OUT.L7
TUNER.R2
CD.R4
TAPE IN.R6
TAPE OUT.R8
IC702 LC7822
IC703 LA2785
LATCH5
DATA21
DATA22
CLOCK22
DATA21
LATCH4
CLOCK22
DATA21
LATCH14
X701 8MHz
J703
VIDEO1 IN
VIDEO2 IN
VIDEO OUT
MONITOR OUT
IC800
SN761200N
IC800
VIDEO IN/OUT
Q800 2SA1175
Q801 2SA1175
Q800,801 BUFFER
L800 100μH
CN708
CN707
TO CHASSIS
【VIDEO BOARD】
E,SP Model
EXCEPT E,SP Model
0.027
0.039
UK,G Model
TM1
FM 300Ω
G
AM
EXCEPT UK,G Model
TM1
FM 75Ω
G
AM
UK,G Model
FE1
FE2
Q55 BA1F4M FM BAND SWITCH
Q1 2SC2669OY FM IF AMP
CF1 MS
CF2
CF3
Q2 2SC2669Y FM IF AMP
UK,G Model
EXCEPT UK,G Model
AM TUNED
FM TUNED
LPF1
LPF2
IN
OUT
IFT1
TUNER.R2
TUNER.L1
IC1
IC1 LA1835
AM RF/OSC/MIX/IF DET
FM DET/MPX
CF6 10.7MHz
RV2 22k
IC51
PLL
IC51 LC7218
X51 7.2MHz
US,CND, MX Model
Q61 2SK246GR3 LPF
Q62 2SC3112AB LFF
D1 1N4148M
Q71 BA1F4M MUTE
LATCH13
DATA11
CLOCK12
DATAIN14
TUNED6
STEREO5
MUTE7
IC714
D705 1N4148M
①
②

th respect to ground under

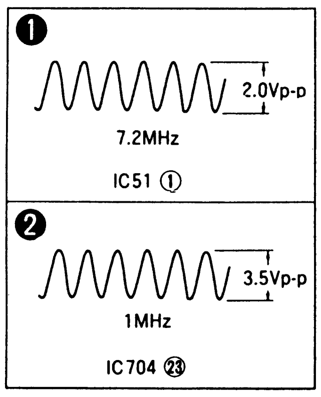
Input impedance 10M Ω).
due to normal production

loscope.
due to normal production

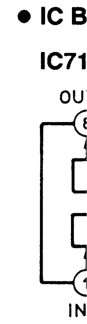
ms.

- Signal path.
  - ⇨ : FM ⇨ : PB (DECK A) ⇨ : CD
  - ⇨ : PHONO ⇨ : VIDEO
- Abbreviation
  - CND : Canadian
  - G : German
  - MX : Mexican
  - SP : Singapore

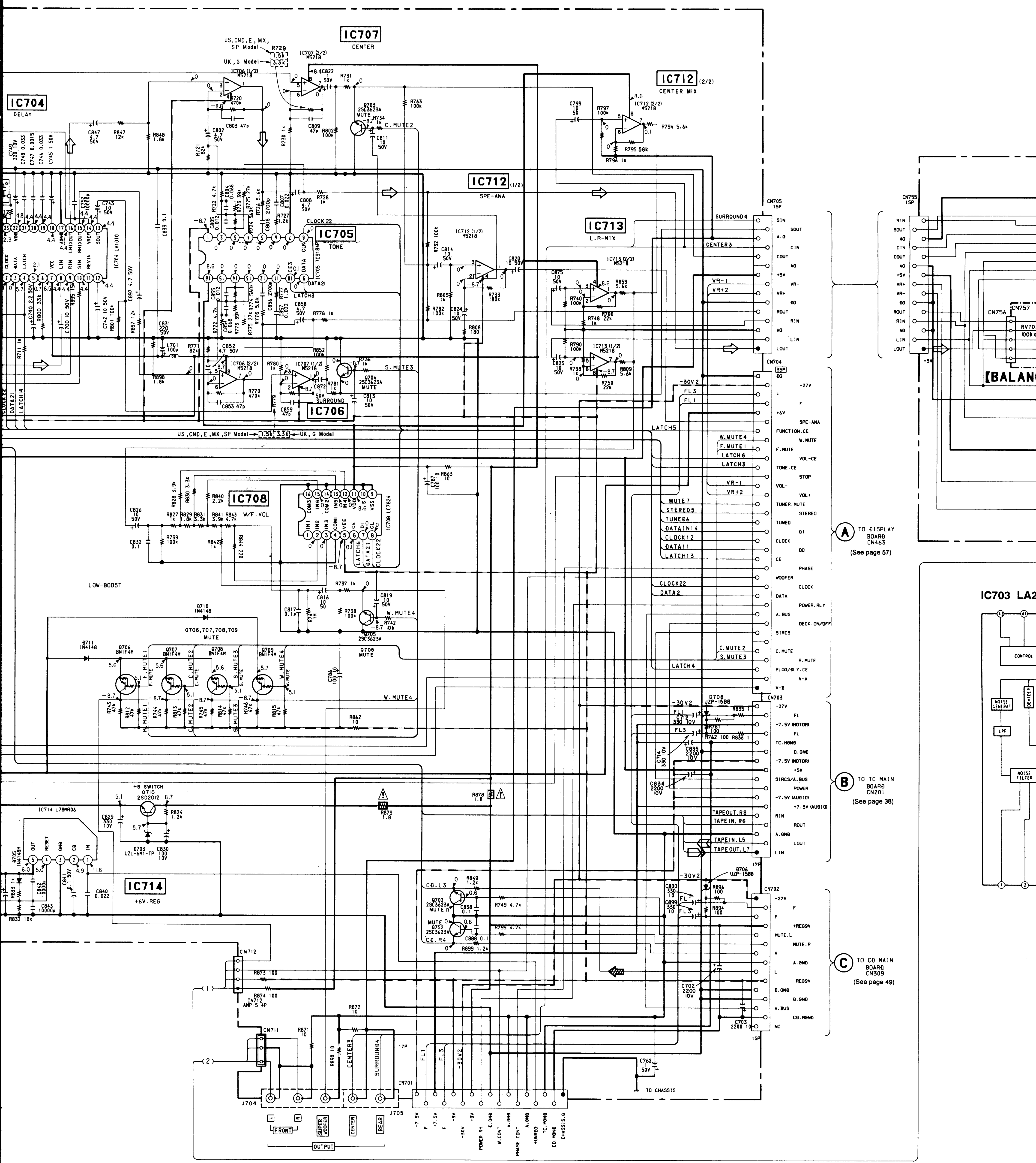
• WAVEFORMS



• IC B

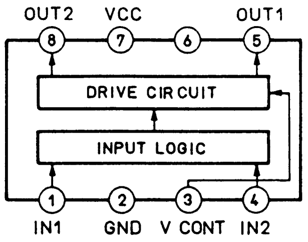


14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27

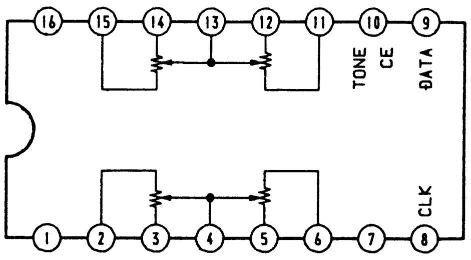

IC704
DELAY
IC704 LV1010
IC707
CENTER
US,CND,E,MX, SP Model
R729 1.5k 3.3k
UK,G Model
IC706 (1/2) M5218
IC707 (2/2) M5218
IC712 (2/2)
CENTER MIX
IC712 (2/2) M5218
IC712 (1/2)
SPE-ANA
IC712 (1/2) M5218
IC705
TONE
IC705 TC9184P
CLOCK 22
DATA21
LATCH3
IC713
L.R-MIX
IC713 (2/2) M5218
IC713 (1/2) M5218
IC706
SURROUND
IC706 (2/2) M5218
IC707 (1/2) M5218
Q703 2SC3623A MUTE
C.MUTE2
Q704 2SC3623A MUTE
S.MUTE3
US,CND,E,MX,SP Model 1.5k 3.3k UK,G Model
IC708
W/F.VOL
IC708 LC7824
LATCH6
DATA21
CLOCK22
LOW-BOOST
Q705 2SC3623A
W.MUTE4
D710 1N4148
D711 1N4148
Q706,707,708,709 MUTE
Q706 BN1F4M
Q707 BN1F4M
Q708 BN1F4M
Q709 BN1F4M
Q705 MUTE
F.MUTE1
C.MUTE2
S.MUTE3
W.MUTE4
+B SWITCH Q710 2SD2012
D703 UZL-6M1-TP
IC714 L78MR06
IC714
+6V.REG
D705 1N4148M
R878 1.8
R879 1.8
CN712
CN712 AMP-S 4P
CN711
J704
J705
FRONT
L
R
SUPER WOOFER
CENTER
REAR
OUTPUT
CN701
17P
CENTER3
SURROUND4
FL1
FL3
-30V2
-7.5V
F
+7.5V
F
-9V
-30V
+9V
POWER.RY
D.GND
W.CONT
A.GND
PHASE.CONT
A.GND
+UNREG
TC.MGND
CD.MGND
CHASSIS.G
TO CHASSIS
CD.L3
Q702 2SC3623A MUTE
MUTE Q752 2SC3623A
CD.R4
CN705 15P
SIN
SOUT
A.G
CIN
COUT
AG
+5V
VR-
VR+
DG
ROUT
RIN
AG
LIN
LOUT
SURROUND4
CENTER3
VR-1
VR+2
CN704 35P
DG
-27V
F
F
+6V
SPE-ANA
FUNCTION.CE
W.MUTE
F.MUTE
VOL-CE
TONE.CE
STOP
VOL-
VOL+
TUNER.MUTE
STEREO
TUNED
DI
CLOCK
DO
CE
PHASE
WOOFER
CLOCK
DATA
POWER.RLY
A.BUS
DECK.ON/OFF
SIRCS
C.MUTE
R.MUTE
PLOG/DLY.CE
V-A
V-B
-30V2
FL3
FL1
LATCH5
W.MUTE4
F.MUTE1
LATCH6
LATCH3
MUTE7
STEREO5
TUNED6
DATAIN14
CLOCK12
DATA11
LATCH13
CLOCK22
DATA2
C.MUTE2
S.MUTE3
LATCH4
Ⓐ TO DISPLAY BOARD CN463
(See page 57)
CN703
D708 UZP-15BB
-27V
FL
+7.5V (MOTOR)
FL
TC.MGND
D.GND
-7.5V (MOTOR)
+5V
SIRCS/A.BUS
POWER
-7.5V (AUDIO)
+7.5V (AUDIO)
RIN
ROUT
A.GND
LOUT
LIN
TAPEOUT.R8
TAPEIN.R6
TAPEIN.L5
TAPEOUT.L7
17P
Ⓑ TO TC MAIN BOARD CN201
(See page 38)
CN702
D706 UZP-15BB
-27V
F
F
+REG9V
MUTE.L
MUTE.R
R
A.GND
L
-REG9V
D.GND
D.GND
A.BUS
CD.MGND
NC
15P
Ⓒ TO CD MAIN BOARD CN309
(See page 49)
CN755 15P
SIN
SOUT
AG
CIN
COUT
AG
+5V
VR+
VR-
DG
ROUT
RIN
AG
LIN
LOUT
CN756
CN757
RV70 100k
[BALAN
IC703 LA2
CONTROL
NOISE GENERAT
DEVIDER
LPF
NOISE FILTER

- **IC BLOCK DIAGRAMS**

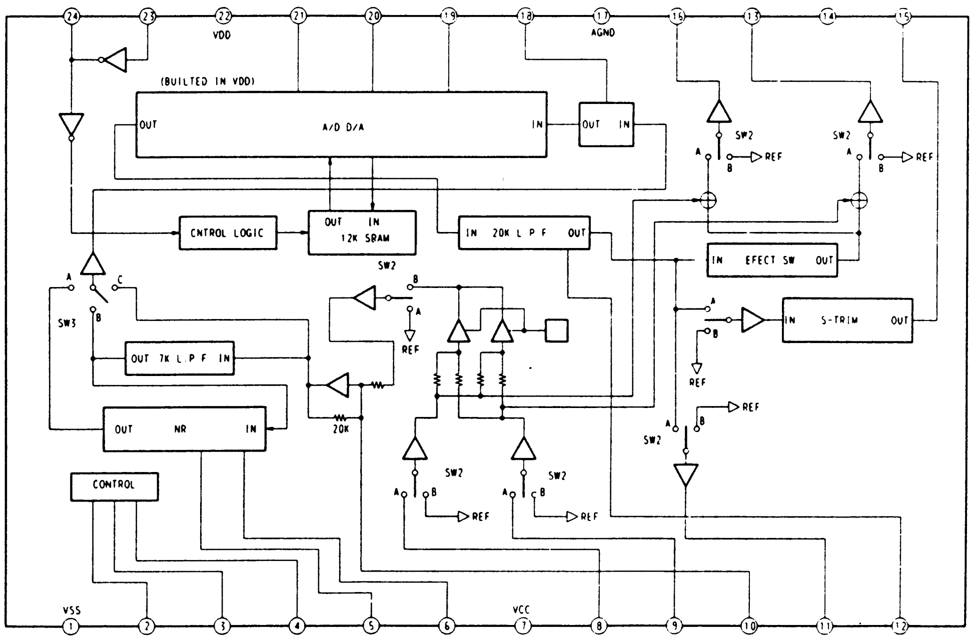
IC710 LB1639


OUT2
VCC
OUT1
DRIVE CIRCUIT
INPUT LOGIC
IN1
GND
V CONT
IN2

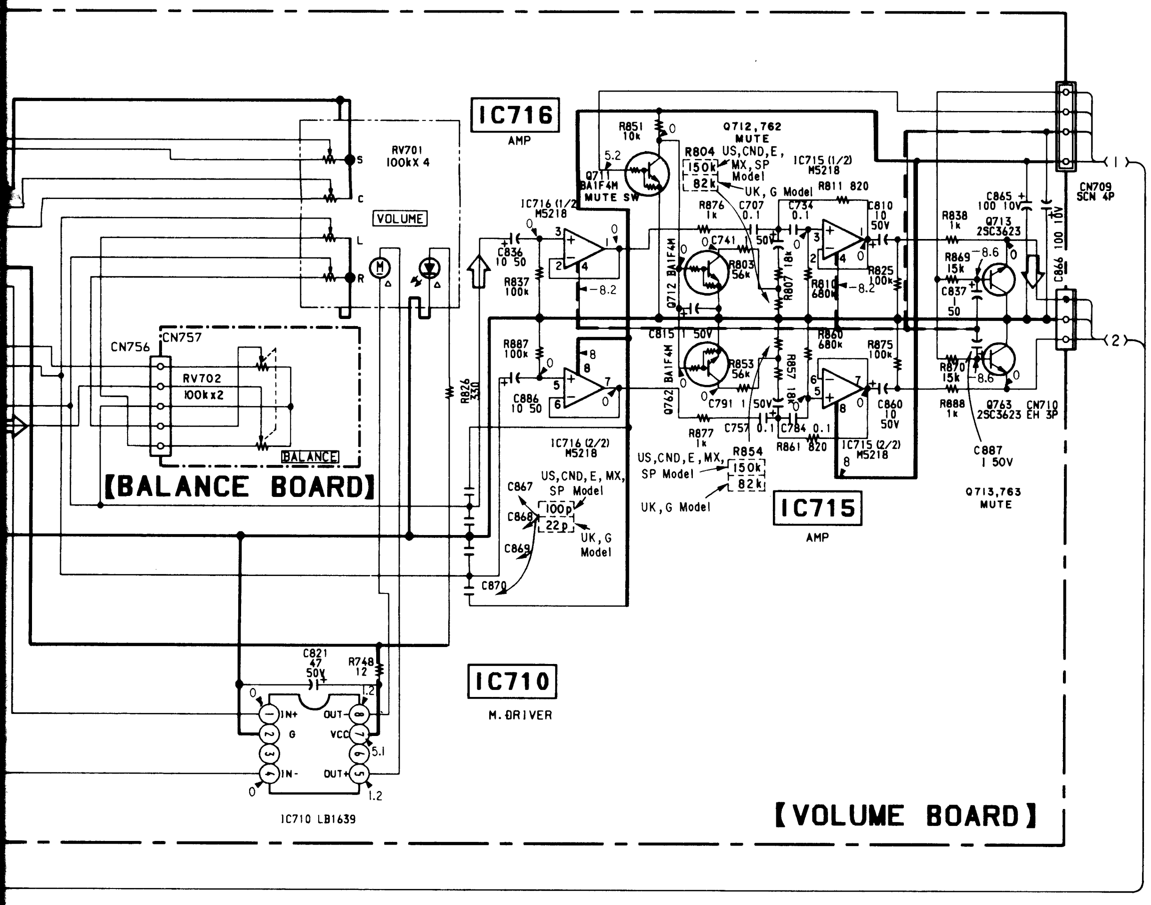
IC705 TC9184P


TONE
CE
DATA
CLK

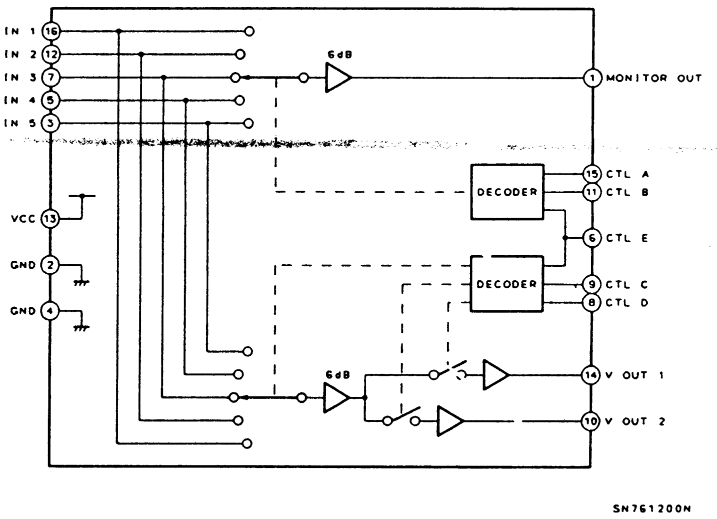
IC704 LV1010


VDD
AGND
(BUILTED IN VDD)
OUT
A/D D/A
IN
CNTROL LOGIC
12K SRAM
20K L P F
EFECT SW
S-TRIM
7K L P F
NR
20K
CONTROL
SW2
SW3
REF
VSS
VCC

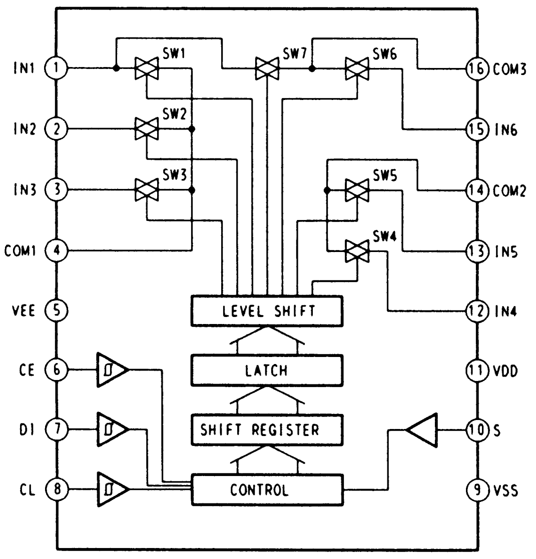
27 | 28 | 29 | 30 | 31 | 32 | 33


IC716
AMP
RV701
100kX 4
VOLUME
CN757
CN756
RV702
100kx2
BALANCE
[BALANCE BOARD]
Q712,762
MUTE
US,CND,E,
MX,SP
Model
UK,G Model
IC715 (1/2)
M5218
IC716 (1/2)
M5218
IC716 (2/2)
M5218
IC715 (2/2)
M5218
IC715
AMP
Q713
2SC3623
Q763
2SC3623
CN709
SCN 4P
CN710
EH 5P
Q713,763
MUTE
IC710
M.DRIVER
IC710 LB1639
[VOLUME BOARD]

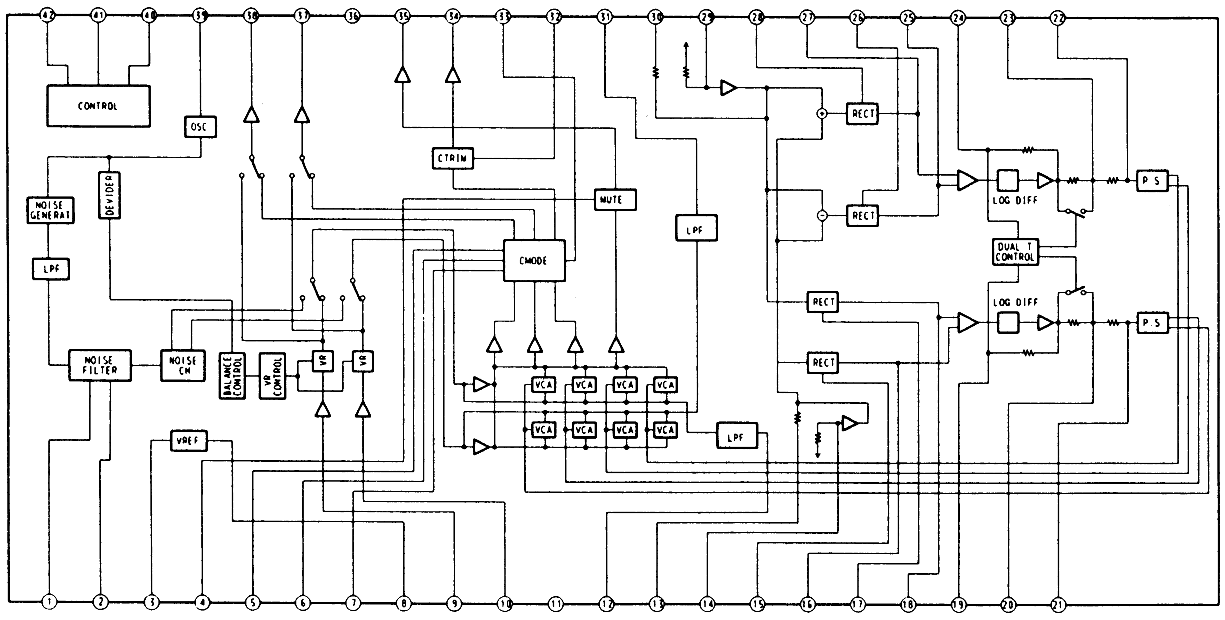
IC800 SN761200


IN 1
IN 2
IN 3
IN 4
IN 5
6dB
MONITOR OUT
DECODER
CTL A
CTL B
CTL E
CTL C
CTL D
VCC
GND
GND
V OUT 1
V OUT 2
SN761200N

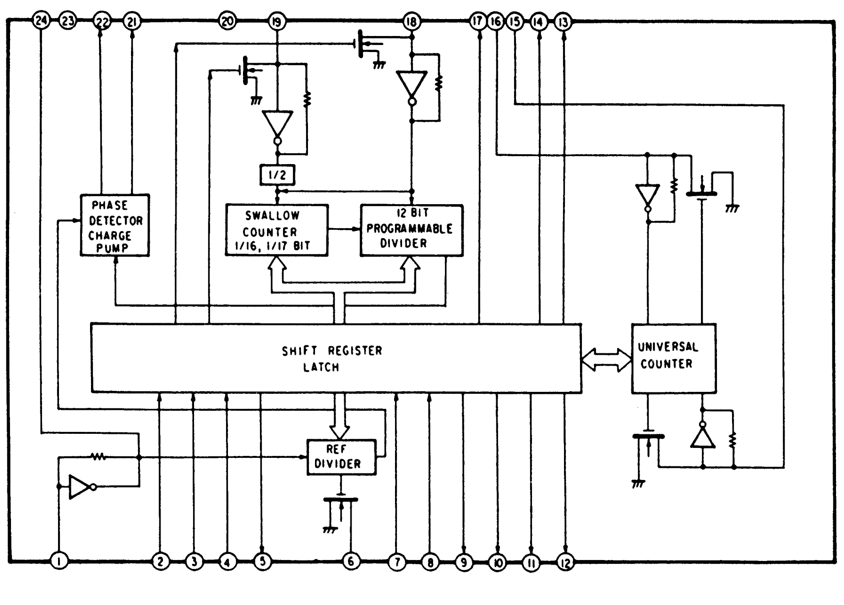
IC708 LC7824


IN1
IN2
IN3
COM1
VEE
CE
DI
CL
SW1
SW2
SW3
SW4
SW5
SW6
SW7
LEVEL SHIFT
LATCH
SHIFT REGISTER
CONTROL
COM3
IN6
COM2
IN5
IN4
VDD
S
VSS

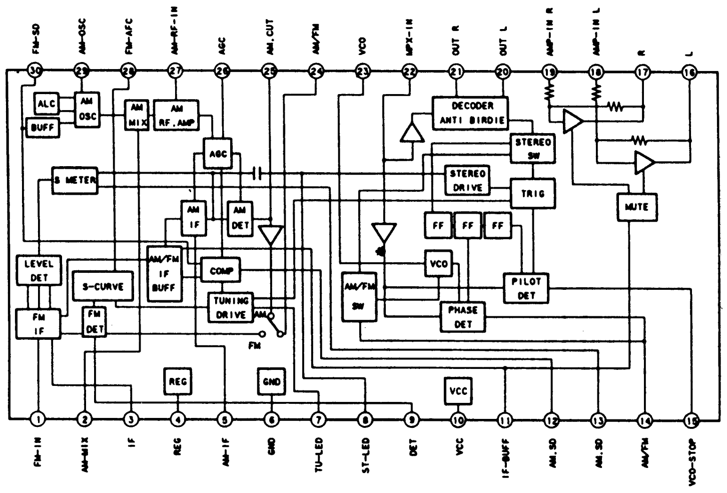
IC703 LA2785


CONTROL
OSC
NOISE GENERAT
DEVIDER
LPF
NOISE FILTER
NOISE CH
BALANCE CONTROL
VR CONTROL
VR
CTRIM
MUTE
CMODE
VCA
LPF
RECT
LOG DIFF
DUAL T CONTROL
P S
VREF

IC51 LC7218-ST

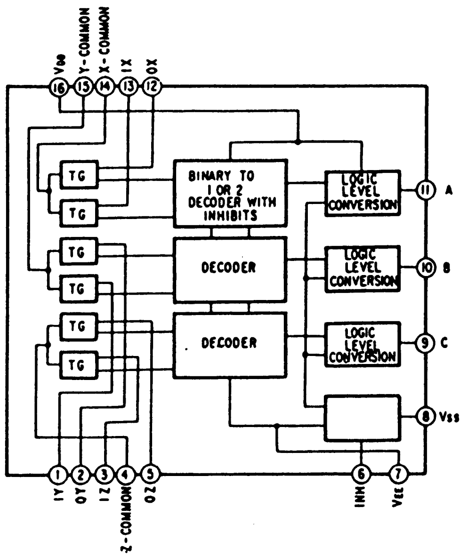

PHASE DETECTOR CHARGE PUMP
1/2
SWALLOW COUNTER 1/16, 1/17 BIT
12 BIT PROGRAMMABLE DIVIDER
SHIFT REGISTER LATCH
UNIVERSAL COUNTER
REF DIVIDER

IC1 LA1835

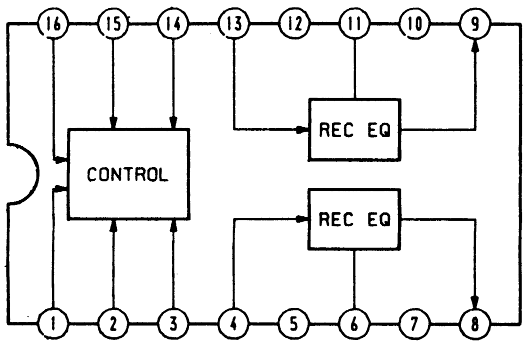

FM-SD
AM-OSC
FM-AFC
AM-RF-IN
AGC
AM/FM
VCO
MPX-IN
OUT R
OUT L
AMP-IN R
AMP-IN L
R
L
ALC
BUFF
AM OSC
AM MIX
AM RF.AMP
AGC
S METER
AM IF
AM DET
DECODER ANTI BIRDIE
STEREO SW
STEREO DRIVE
TRIG
FF
MUTE
LEVEL DET
S-CURVE
AM/FM IF BUFF
COMP
TUNING DRIVE
AM/FM SW
VCO
PHASE DET
PILOT DET
FM IF
FM DET
REG
GND
VCC
FM-IN
AM-MIX
IF
REG
AM-IF
GND
TU-LED
ST-LED
DET
VCC
IF-BUFF
AM.SD
AM.SD
AM/FM
VCO-STOP

• IC BLOCK DIAGRAMS

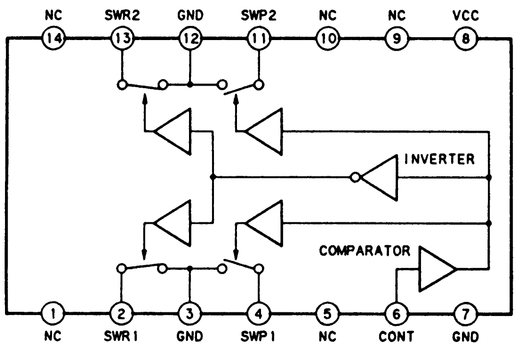
IC202 MC14053BC


VDD
Y-COMMON
X-COMMON
1X
0X
⑯ ⑮ ⑭ ⑬ ⑫
TG
BINARY TO 1 OR 2 DECODER WITH INHIBITS
DECODER
DECODER
LOGIC LEVEL CONVERSION
⑪ A
⑩ B
⑨ C
⑧ VSS
1Y
0Y
1Z
Z-COMMON
0Z
① ② ③ ④ ⑤ ⑥ ⑦
INH
VEE

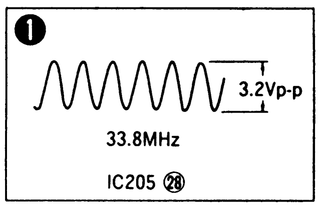
IC203 CXA1578P


⑯ ⑮ ⑭ ⑬ ⑫ ⑪ ⑩ ⑨
CONTROL
REC EQ
REC EQ
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

IC31 (B) μPC1330GR


NC ⑭
SWR2 ⑬
GND ⑫
SWP2 ⑪
NC ⑩
NC ⑨
VCC ⑧
INVERTER
COMPARATOR
① NC
② SWR1
③ GND
④ SWP1
⑤ NC
⑥ CONT
⑦ GND

• WAVEFORM



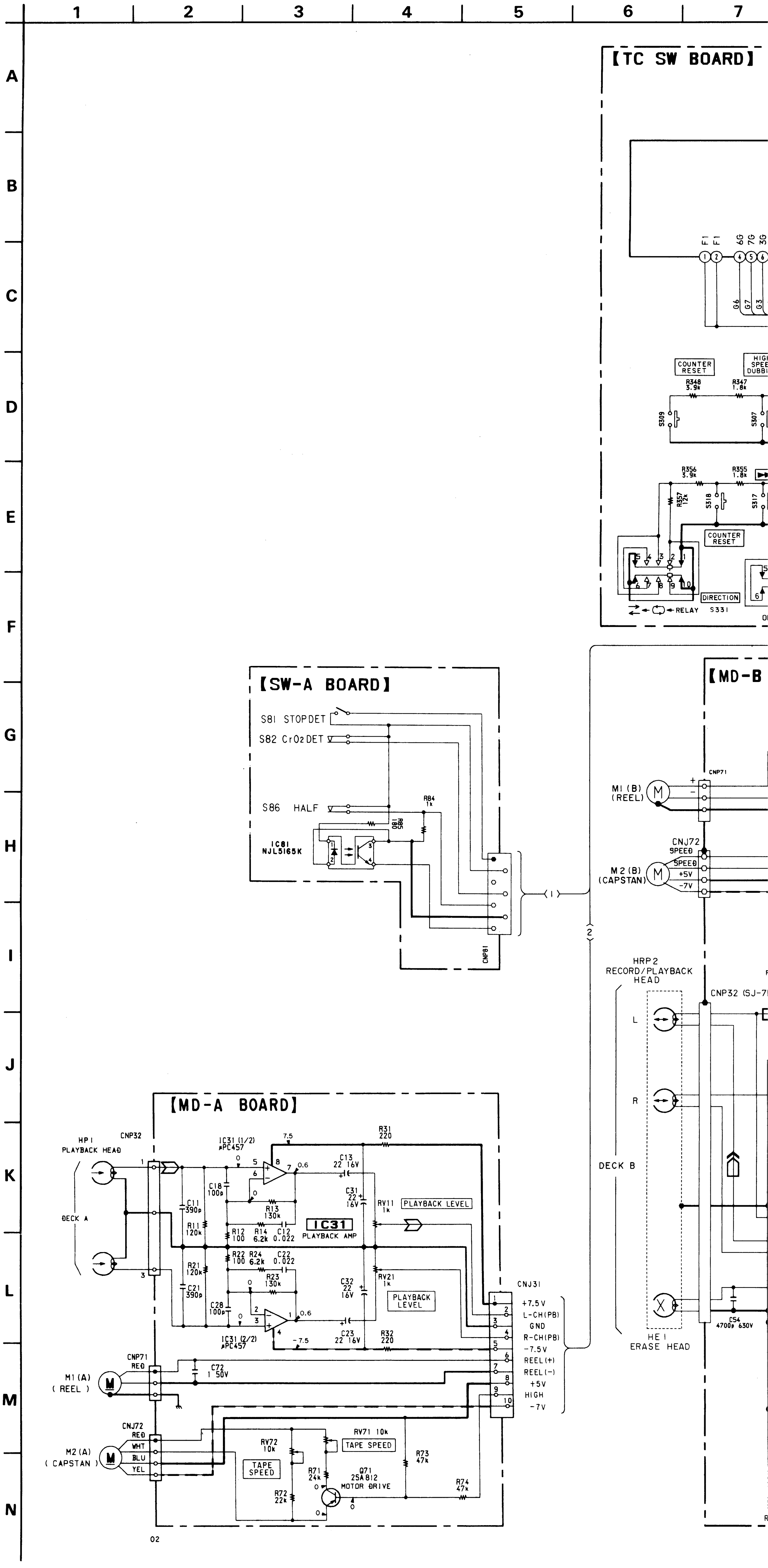
Note :

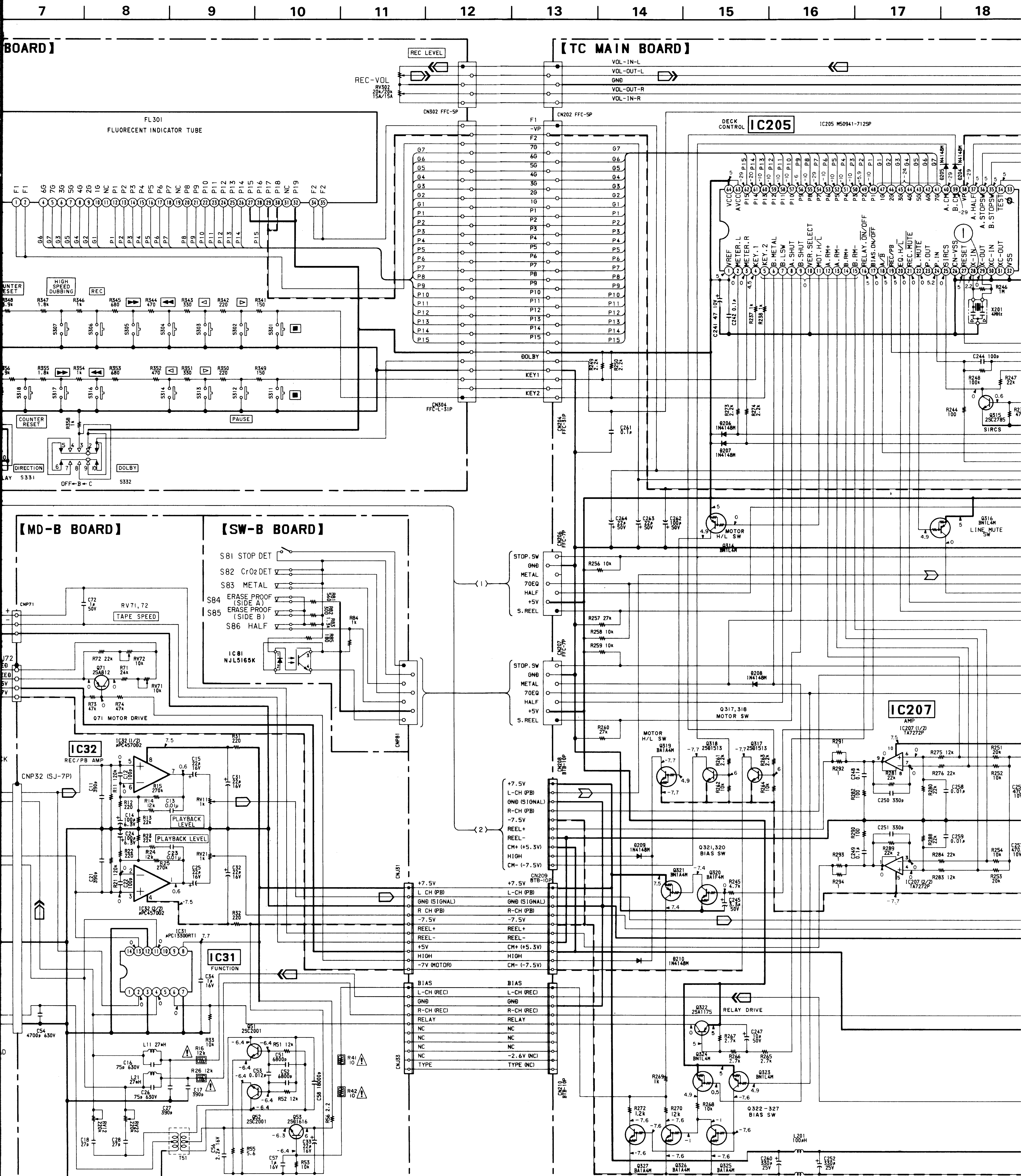
- All capacitors are in μ F unless otherwise noted. pF: μ μ F 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- ▭ : nonflammable resistor.

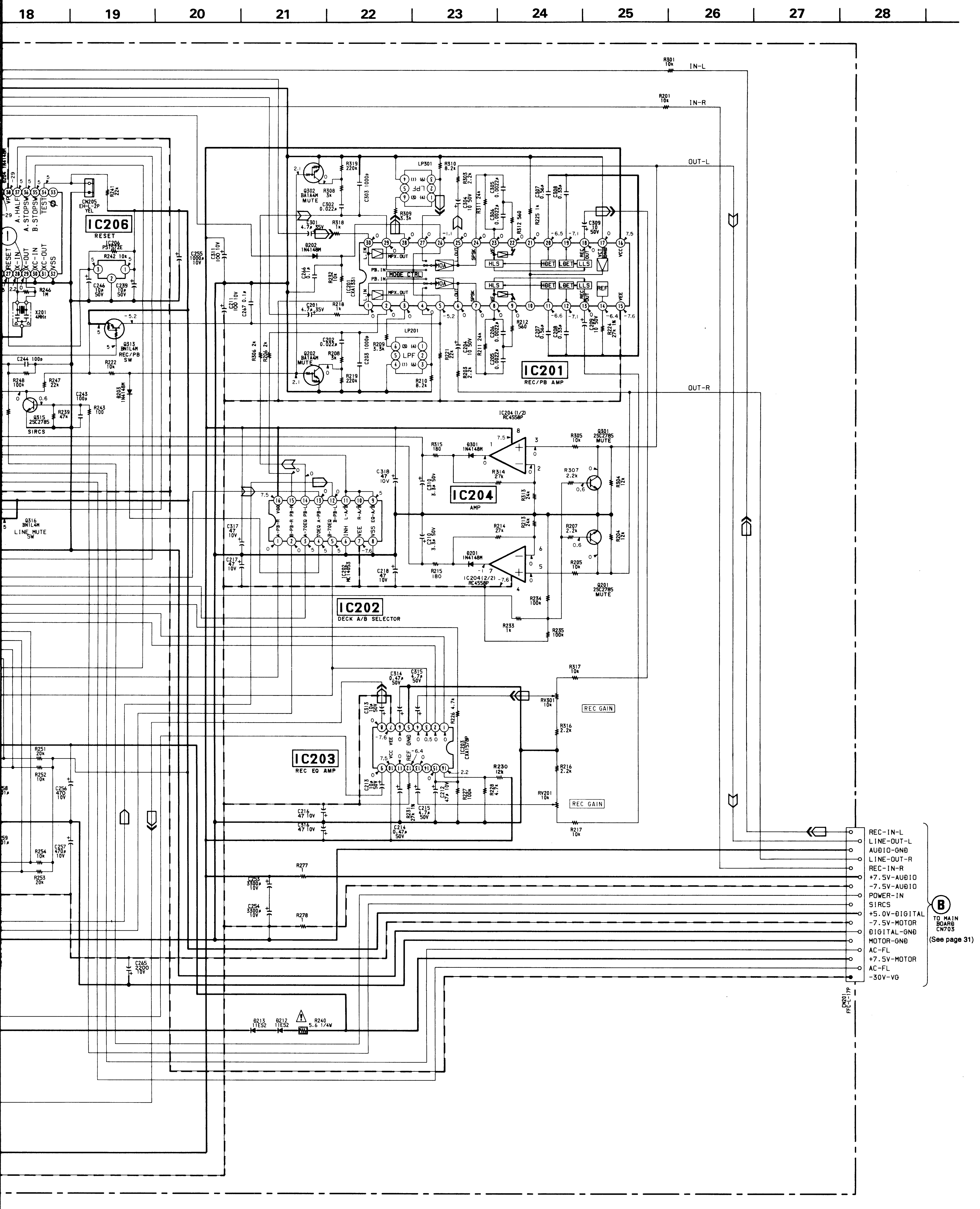
Note :	Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ▬▬▬ : B+ Line
- ▬ ▬ ▬ : B − Line
- ☐ : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  - ▷ : PB (DECK A)
  - ▷» : REC (DECK A)
  - ▷ : PB (DECK B)
  - ▷» : REC (DECK B)

5-4. SCHEMATIC DIAGRAM – TC SECTION –

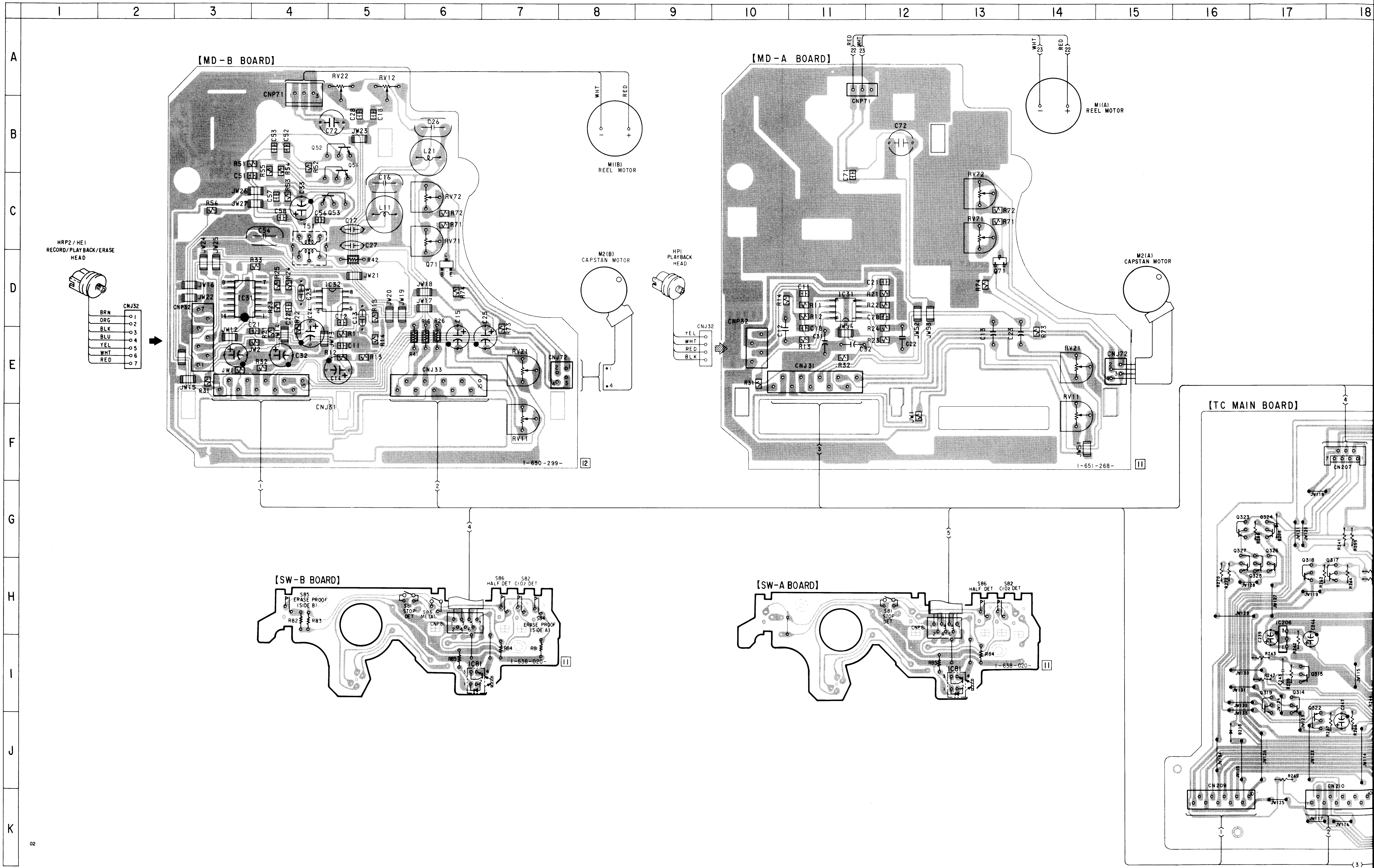

1 2 3 4 5 6 7
A B C D E F G H I J K L M N
【TC SW BOARD】
COUNTER RESET
R348 3.9k
R347 1.8k
S309
S307
R356 3.9k
R355 1.8k
R357 12k
S318
S317
COUNTER RESET
DIRECTION
RELAY S331
【SW-A BOARD】
S81 STOPDET
S82 CrO2DET
S86 HALF
R84 1k
R85 180
IC81 NJL5165K
CNP81
(1)
(2)
【MD-B
M1 (B) (REEL)
CNP71
CNJ72 SPEED
M2 (B) (CAPSTAN)
SPEED
+5V
-7V
HRP2 RECORD/PLAYBACK HEAD
CNP32 (SJ-7
L
R
DECK B
HE1 ERASE HEAD
C54 4700p 630V
【MD-A BOARD】
HP1 PLAYBACK HEAD
CNP32
DECK A
IC31 (1/2) μPC457
7.5
R31 220
C13 22 16V
0.6
C18 100p
R13 130k
C31 22 16V
RV11 1k
PLAYBACK LEVEL
C11 390p
R11 120k
R12 100
R14 6.2k
C12 0.022
IC31
PLAYBACK AMP
R21 120k
R22 100
R24 6.2k
C22 0.022
R23 130k
C32 22 16V
RV21 1k
PLAYBACK LEVEL
C21 390p
C28 100p
IC31 (2/2) μPC457
-7.5
C23 22 16V
R32 220
CNJ31
+7.5V
L-CH(PB)
GND
R-CH(PB)
-7.5V
REEL(+)
REEL(−)
+5V
HIGH
-7V
CNP71 RED
M1 (A) (REEL)
C72 1 50V
CNJ72 RED WHT BLU YEL
M2 (A) (CAPSTAN)
RV72 10k
TAPE SPEED
RV71 10k
TAPE SPEED
R73 47k
R71 24k
Q71 2SA812 MOTOR DRIVE
R72 22k
R74 47k
02

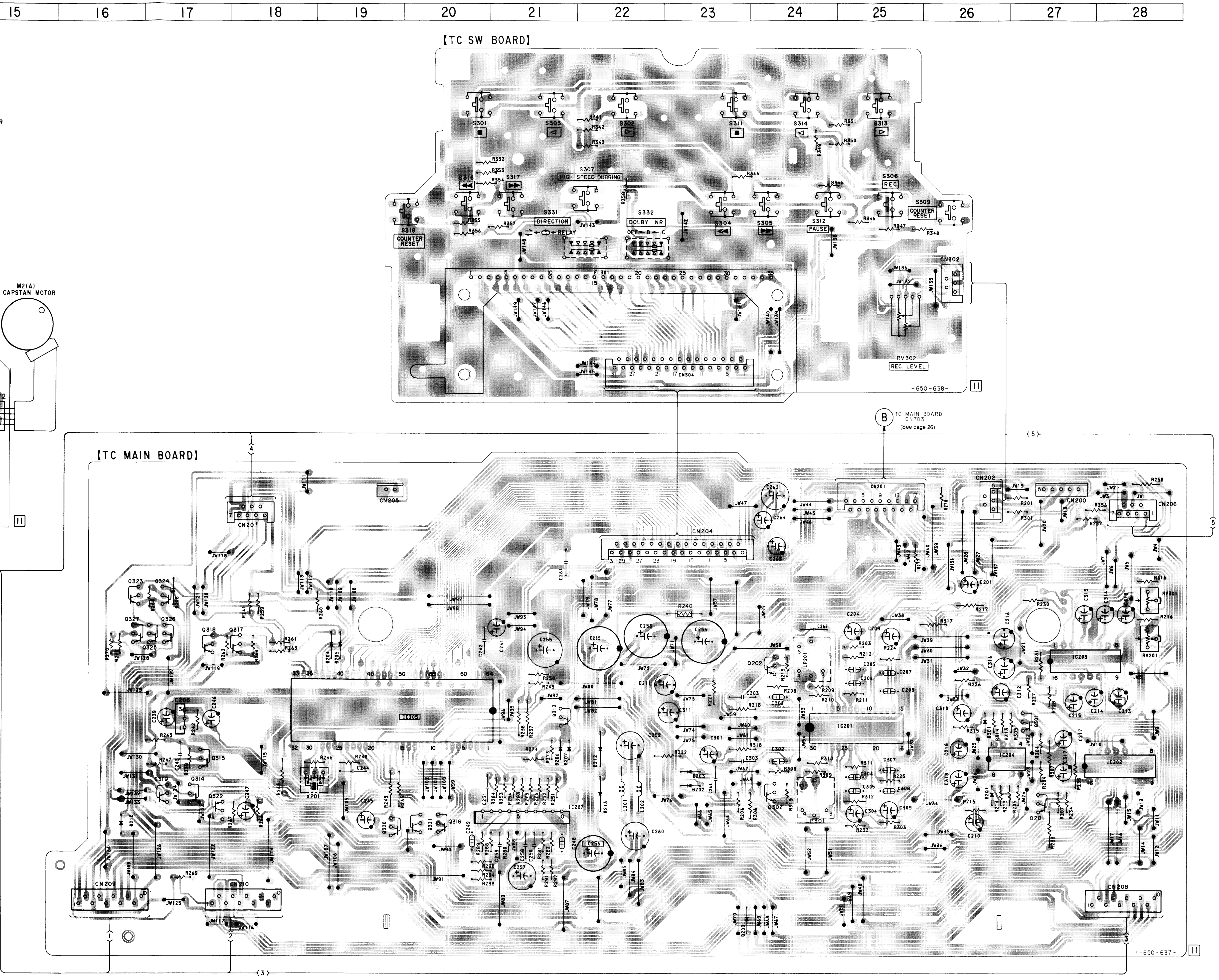

7
8
9
10
11
12
13
14
15
16
17
18
BOARD】
【TC MAIN BOARD】
REC LEVEL
REC-VOL
RV302 20k/20k 15A/15A
CN302 FFC-5P
CN202 FFC-5P
VOL-IN-L
VOL-OUT-L
GND
VOL-OUT-R
VOL-IN-R
FL301
FLUORECENT INDICATOR TUBE
DECK CONTROL
IC205
IC205 M50941-712SP
CN304 FFC-L-31P
CN204 FFC-31P
DOLBY
KEY1
KEY2
HIGH SPEED DUBBING
REC
COUNTER RESET
PAUSE
DIRECTION
DOLBY
S331
S332
OFF←B←C
X201 4MHz
Q315 2SC2785
SIRCS
Q316 BN1L4M
LINE MUTE SW
MOTOR H/L SW
Q314 BN1L4M
【MD-B BOARD】
【SW-B BOARD】
S81 STOP DET
S82 CrO2 DET
S83 METAL
S84 ERASE PROOF (SIDE A)
S85 ERASE PROOF (SIDE B)
S86 HALF
IC81 NJL5165K
CNP81
CN206 FFC-7P
CN207 FFC-7P
STOP.SW
GND
METAL
70EQ
HALF
+5V
S.REEL
RV71,72
TAPE SPEED
Q71 2SA812
Q71 MOTOR DRIVE
IC32
REC/PB AMP
IC32 (1/2) μPC4570G2
IC32 (2/2) μPC4570G2
CNP32 (SJ-7P)
PLAYBACK LEVEL
IC31
IC31 μPC1330GRT1
FUNCTION
CN31
CN209 BTB-10P
CN208 BTB-10P
+7.5V
L-CH (PB)
GND (SIGNAL)
R-CH (PB)
-7.5V
REEL+
REEL-
CM+ (+5.3V)
HIGH
CM- (-7.5V)
+5V
-7V (MOTOR)
CN33
CN210 BTB-10P
BIAS
L-CH (REC)
R-CH (REC)
RELAY
NC
-2.6V (NC)
TYPE
TYPE (NC)
Q51 2SC2001
Q52 2SC2001
Q53 2SB1616
Q51,52,53 BIAS OSC
T51
RV12,22
RECORD LEVEL BIAS
Q317,318 MOTOR SW
MOTOR H/L SW
Q319 BA1A4M
Q318 2SB1513
Q317 2SB1513
Q321,320 BIAS SW
Q321 BN1A4M
Q320 BA1F4M
IC207
AMP
IC207 (1/2) TA7272P
IC207 (2/2) TA7272P
Q322 2SA1175
RELAY DRIVE
Q324 BN1L4M
Q323 BN1L4M
Q322-327 BIAS SW
Q327 BA1A4M
Q326 BA1A4M
Q325 BA1A4M
L201 100μH
L202 100μH


18
19
20
21
22
23
24
25
26
27
28
IC206
RESET
IC206 PST572E
CN205 EH-L-2P YEL
A.HALF
A.STOPSW
B.STOPSW
TEST
RESET
XC-IN
XC-OUT
VSS
X201 4MHz
Q313 BN1L4M REC/PB SW
Q315 2SC2785 SIRCS
Q316 BN1L4M LINE MUTE SW
IC201
REC/PB AMP
IC201 CXA1331
Q302 BA1A4M MUTE
Q202 BA1A4M MUTE
LP301
LP201
LPF
MODE CTRL
MPX.OUT
PB.IN
HLS
HDET
LBET
LLS
REF
VCC
VEE
OUT-L
OUT-R
IN-L
IN-R
R301 10k
R201 10k
IC204
AMP
IC204 (1/2) RC4558P
IC204 (2/2) RC4558P
Q301 2SC2785 MUTE
Q201 2SC2785 MUTE
D301 1N4148M
D201 1N4148M
IC202
DECK A/B SELECTOR
IC202 MC14053
IC203
REC EQ AMP
IC203 CXA1578P
REC GAIN
RV301 10k
RV201 10k
R317 10k
R217 10k
D213 11ES2
D212 11ES2
R240 5.6 1/4W
C265 2200 10V
C253 3300µ 10V
C254 3300µ 10V
R277
R278
REC-IN-L
LINE-OUT-L
AUDIO-GND
LINE-OUT-R
REC-IN-R
+7.5V-AUDIO
-7.5V-AUDIO
POWER-IN
SIRCS
+5.0V-DIGITAL
-7.5V-MOTOR
DIGITAL-GND
MOTOR-GND
AC-FL
+7.5V-MOTOR
AC-FL
-30V-VG
CN201 FFC-L-17P
B
TO MAIN BOARD CN703
(See page 31)

5-5. PRINTED WIRING BOARDS – TC SECTION –

- Refer to page 25 for Semiconductor Lead Layouts.


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
A B C D E F G H I J K
[MD-B BOARD]
[MD-A BOARD]
[SW-B BOARD]
[SW-A BOARD]
[TC MAIN BOARD]
HRP2/HE1
RECORD/PLAYBACK/ERASE
HEAD
BRN
ORG
BLK
BLU
YEL
WHT
RED
CNJ32
CNP32
CNP71
CNJ31
CNJ33
CNJ72
M1(B)
REEL MOTOR
M2(B)
CAPSTAN MOTOR
M1(A)
REEL MOTOR
M2(A)
CAPSTAN MOTOR
HP1
PLAYBACK
HEAD
IC31
IC32
Q51
Q52
Q53
Q71
T51
L11
L21
RV11
RV12
RV21
RV22
RV71
RV72
1-650-299-
12
1-651-268-
11
S81
STOP
DET
S82
CrO2 DET
S83
METAL
S84
ERASE PROOF
(SIDE A)
S85
ERASE PROOF
(SIDE B)
S86
HALF DET
CNP81
IC81
R81
R82
R83
R84
R85
1-638-020-
11
CN207
CN209
CN210
IC206
Q314
Q315
Q317
Q318
Q319
Q322
Q323
Q324
Q325
Q326
Q327
1
2
3
4
5
02


15
16
17
18
19
20
21
22
23
24
25
26
27
28
[TC SW BOARD]
S301
S303
S302
S311
S314
S313
S316
S317
S307
HIGH SPEED DUBBING
S306
REC
S309
COUNTER RESET
S318
COUNTER RESET
S331
DIRECTION
RELAY
S332
DOLBY NR
OFF — B — C
S304
S305
S312
PAUSE
FL301
CN304
CN302
RV302
REC LEVEL
1-650-638-
M2(A)
CAPSTAN MOTOR
B
TO MAIN BOARD
CN703
(See page 26)
[TC MAIN BOARD]
CN207
CN205
CN204
CN201
CN202
CN200
CN206
IC205
IC201
IC203
IC204
IC202
IC206
IC207
LP201
LP301
X201
RV301
RV201
CN209
CN210
CN208
1-650-637-

● SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.	Location
D201	I - 26	Q51	B - 5
D202	H - 23	Q52	B - 5
D203	H - 23	Q53	C - 4
D204	G - 18	Q71 (A)	D - 13
D205	G - 18	Q71 (B)	D - 6
D206	H - 21	Q201	J - 27
D207	H - 21	Q202	G - 24
D208	G - 16	Q301	I - 27
D209	J - 24	Q302	H - 24
D210	J - 16	Q311	G - 27
D212	H - 22	Q313	G - 27
D213	H - 22	Q314	I - 16
D301	I - 26	Q315	H - 17
		Q316	I - 20
		Q317	H - 18
IC31 (A)	D - 3		
IC31 (B)	D - 11	Q318	H - 17
IC32	D - 4	Q319	I - 16
IC81 (A)	I - 13	Q320	I - 19
IC81 (B)	I - 6	Q321	I - 19
		Q322	J - 17
IC201	G - 24		
IC202	G - 27	Q323	G - 16
IC203	G - 28	Q324	G - 16
IC204	G - 26	Q325	G - 16
IC205	H - 19	Q326	G - 16
		Q327	G - 16
IC206	H - 17		
IC207	H - 21		

Note:

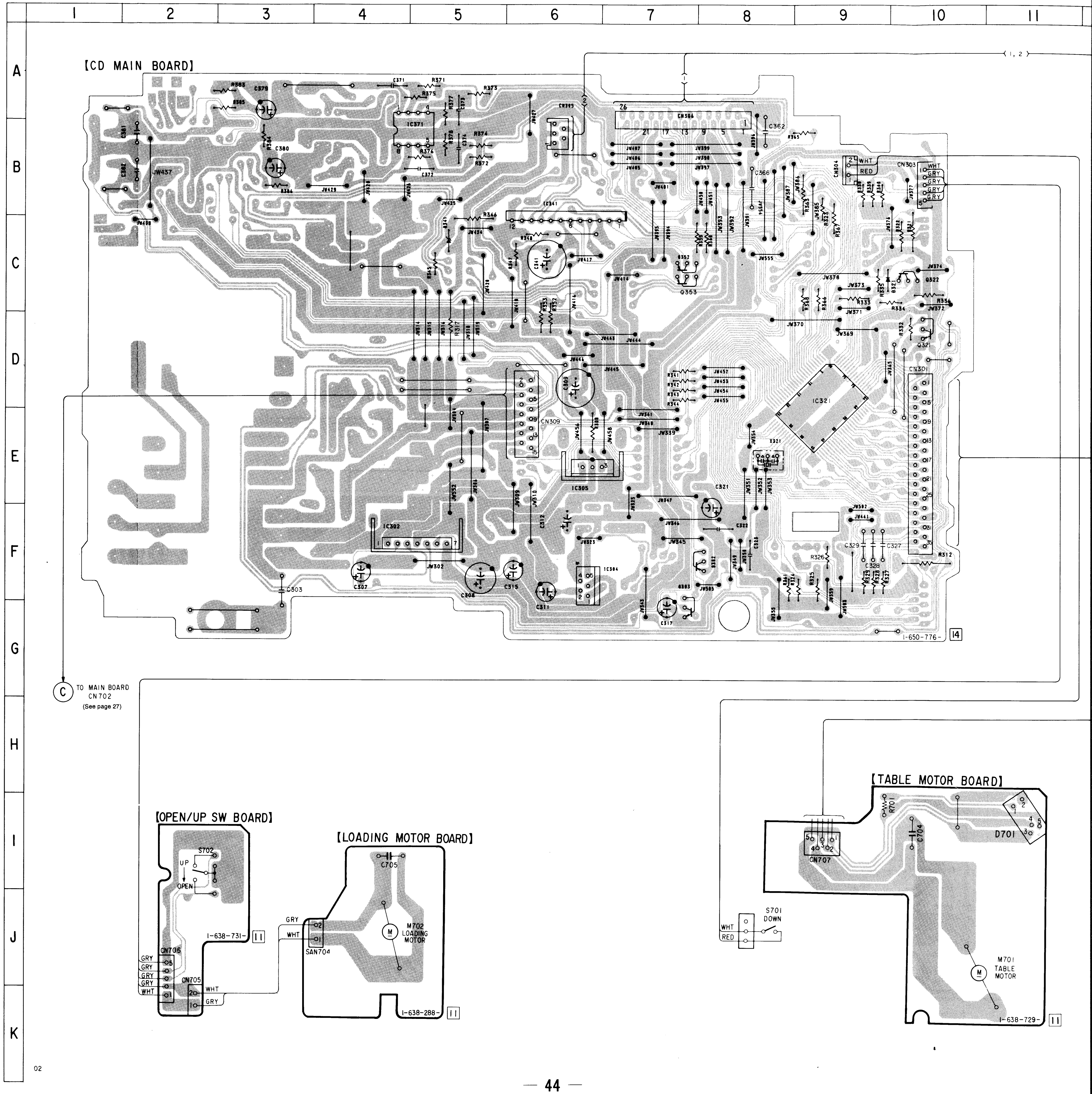
- ○— : parts extracted from the component side.
- ▨ : Pattern on the side which is seen.

5-6. PRINTED WIRING BOARDS – CD SECTION –

• Refer to page 25 for Semiconductor Lead Layouts.

• SEMICONDUCTOR LOCATION

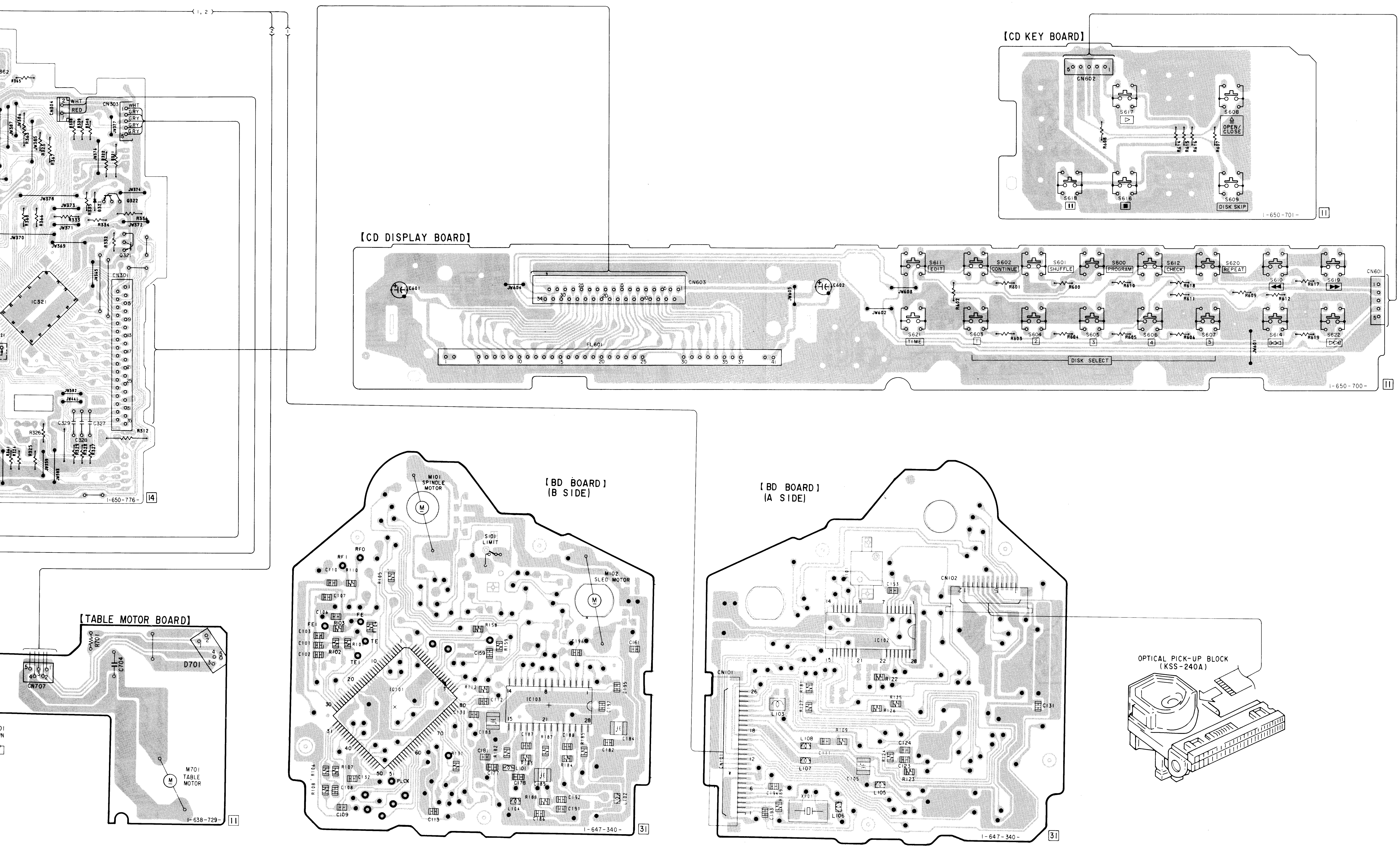
Ref. No.	Location
D321	C-9
D341	C-5
D701	I-11
IC101	I-13
IC102	H-19
IC103	H-15
IC302	F-4
IC304	F-6
IC305	E-6
IC321	E-9
IC341	C-6
IC371	B-5
Q302	F-8
Q303	G-7
Q321	D-10
Q322	C-10
Q352	C-7
Q353	C-7


1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
[CD MAIN BOARD]
IC371
IC341
IC321
IC302
IC305
IC304
CN309
CN301
CN303
CN304
CN305
CN306
Q321
Q322
Q352
Q353
X321
1-650-776- 14
C
TO MAIN BOARD CN702
(See page 27)
[OPEN/UP SW BOARD]
S702
UP
OPEN
CN706
CN705
GRY
WHT
1-638-731- 11
[LOADING MOTOR BOARD]
C705
SAN704
M702 LOADING MOTOR
1-638-288- 11
[TABLE MOTOR BOARD]
R701
C704
D701
CN707
S701 DOWN
WHT
RED
M701 TABLE MOTOR
1-638-729- 11
02

Note:

- ○— : parts extracted from the component side.
- ● : Through hole.
- ░ : Pattern on the side which is seen.

9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25



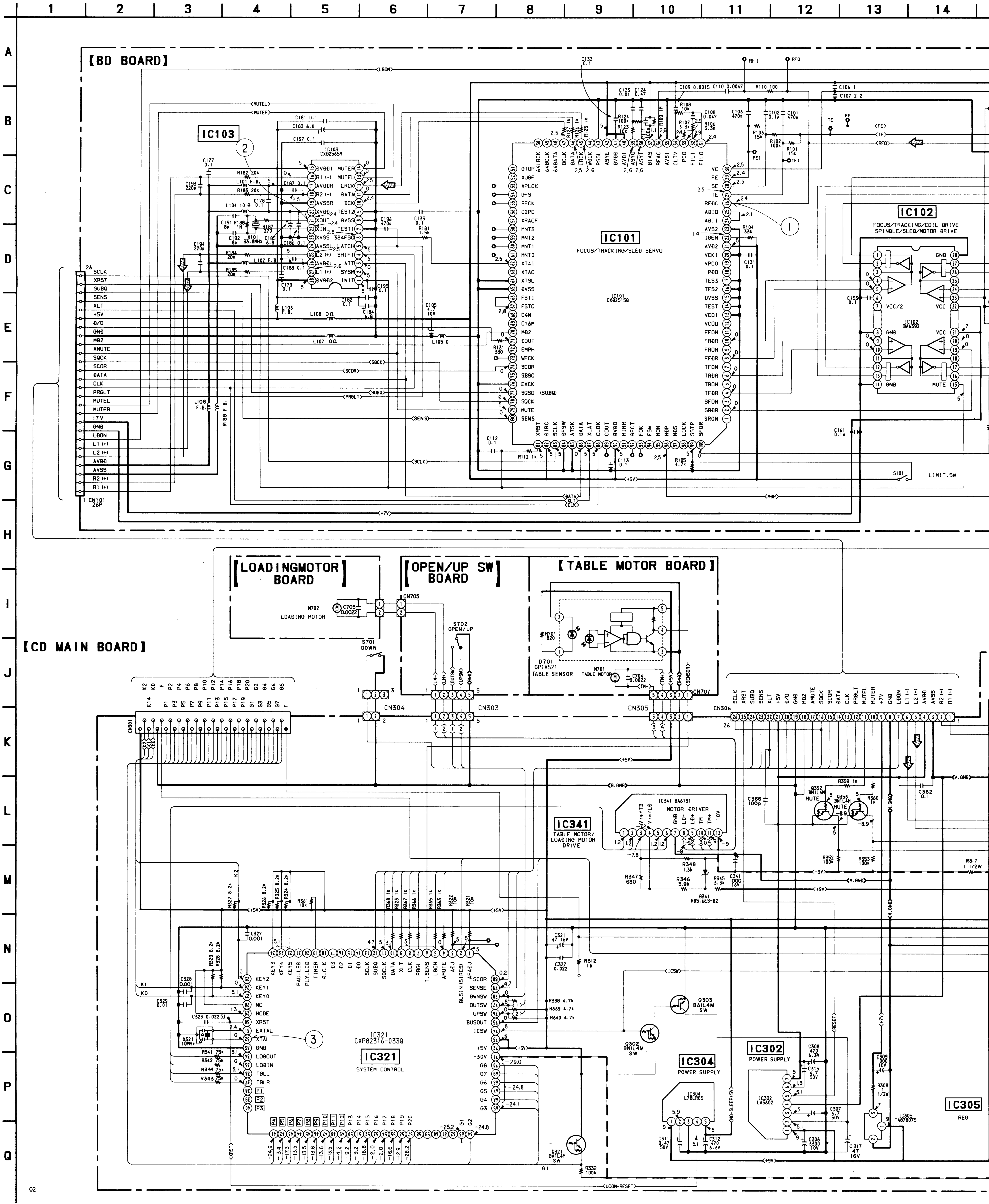
[CD KEY BOARD]
CN602
S617
S608
OPEN/CLOSE
R608
R607
S618
S616
S609
DISK SKIP
1-650-701-
11
[CD DISPLAY BOARD]
C601
JW604
CN603
JW605
C602
JW603
JW602
S611
EDIT
S602
CONTINUE
S601
SHUFFLE
S600
PROGRAM
S612
CHECK
S620
REPEAT
S610
S619
CN601
R601
R600
R610
R618
R611
R609
R617
R612
R602
S621
TIME
S603
S604
S605
S606
S607
S614
S622
R603
R604
R605
R606
R619
JW601
FL601
DISK SELECT
1-650-700-
11
CN304
WHT
RED
CN303
GRY
IC321
CN301
Q322
Q321
JW370
JW373
JW371
JW369
JW378
JW374
JW372
R312
C329
C327
C328
R326
1-650-776-
14
[TABLE MOTOR BOARD]
R701
C704
D701
CN707
M701
TABLE MOTOR
1-638-729-
11
[BD BOARD]
(B SIDE)
M101
SPINDLE MOTOR
S101
LIMIT
M102
SLED MOTOR
RFI
RFO
FE
TE
FEI
TEI
IC101
IC103
PLCK
C110
C107
C106
C103
C101
C102
R103
R102
R104
R106
R107
R108
C108
C109
C132
C113
C159
R158
R159
C161
C196
C195
C197
C184
C182
C183
C181
C187
C188
C177
C178
C185
C186
C191
C192
L101
L104
R182
R183
R184
R185
R186
R187
R131
R105
1-647-340-
31
[BD BOARD]
(A SIDE)
CN102
CN101
IC102
C153
C131
R122
R125
R126
R127
R181
R124
R123
C124
C123
C105
C111
L103
L108
L107
L105
L106
XF01
1-647-340-
31
OPTICAL PICK-UP BLOCK
(KSS-240A)

Note :

- All capacitors are in μ F unless otherwise noted. pF: μ μ F 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- ▬▬ : B+ Line
- ▬ ▬ ▬ : B − Line
- ▭ : adjustment for repair.

- Voltage and waveforms are dc with respect to gr
  no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input impedanc
  Voltage variations may be noted due to normal p
  tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal p
  tolerances.
- Circled numbers refer to waveforms.

5-7. SCHEMATIC DIAGRAM − CD SECTION −

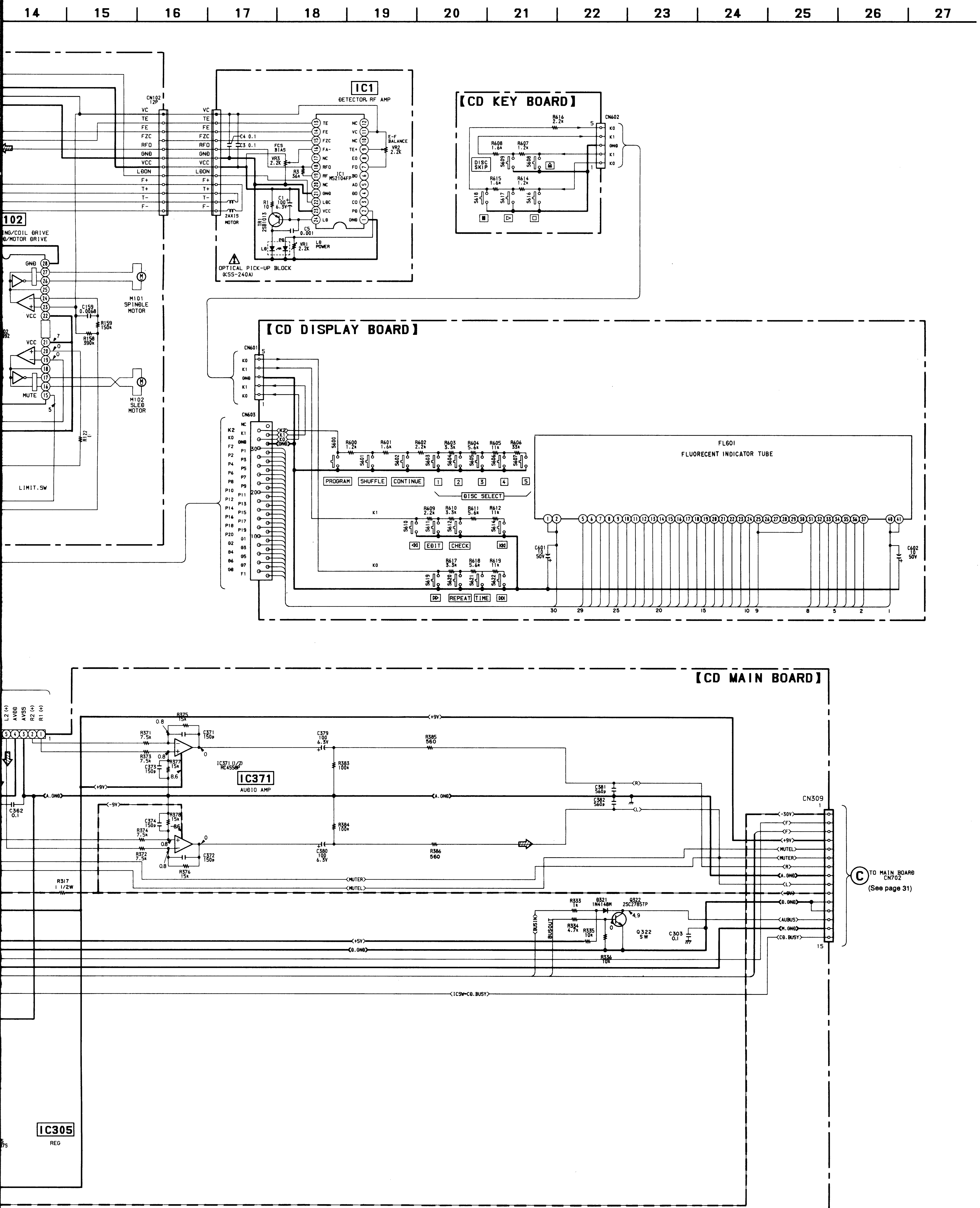

1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
【BD BOARD】
IC103
CXD2565M
IC101
FOCUS/TRACKING/SLED SERVO
IC101
CXD2515Q
IC102
FOCUS/TRACKING/COIL DRIVE
SPINDLE/SLED/MOTOR DRIVE
IC102
BA6392
CN101
26P
S101
LIMIT.SW
RFI
RFO
【LOADINGMOTOR BOARD】
M702
LOADING MOTOR
【OPEN/UP SW BOARD】
S702
OPEN/UP
S701
DOWN
【TABLE MOTOR BOARD】
D701
GP1A52I
TABLE SENSOR
M701
TABLE MOTOR
【CD MAIN BOARD】
CN301
CN304
CN303
CN305
CN306
CN705
CN707
IC341
TABLE MOTOR/
LOADING MOTOR
DRIVE
IC341 BA6191
MOTOR DRIVER
IC321
CXP82316-033Q
IC321
SYSTEM CONTROL
Q303
BA1L4M
SW
Q302
BN1L4M
SW
Q321
BA1L4M
SW
Q352
BN1L4M
MUTE
Q353
BN1L4M
MUTE
IC304
POWER SUPPLY
IC304
L78LR05
IC302
POWER SUPPLY
IC302
LA5602
IC305
REG
IC305
TA78L07S
02

dc with respect to ground under
ons.
OM (Input impedance 10M Ω).
oted due to normal production

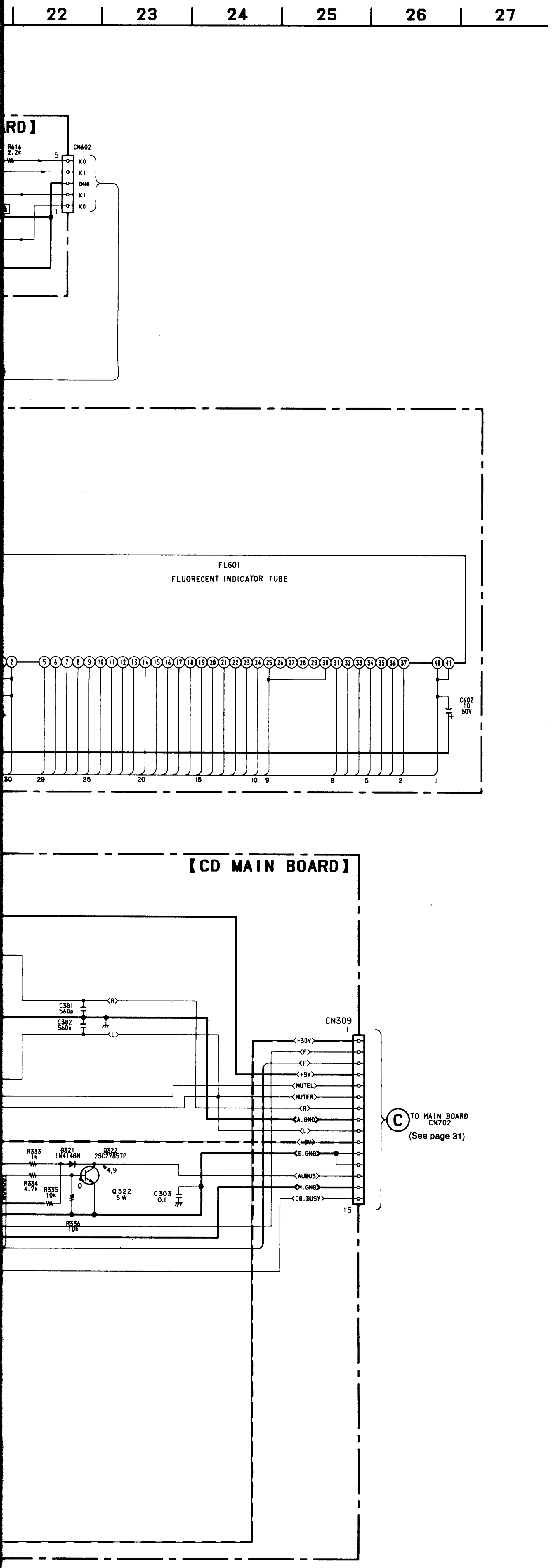
oscilloscope.
oted due to normal production

veforms.

• Signal path.
⇨ : CD

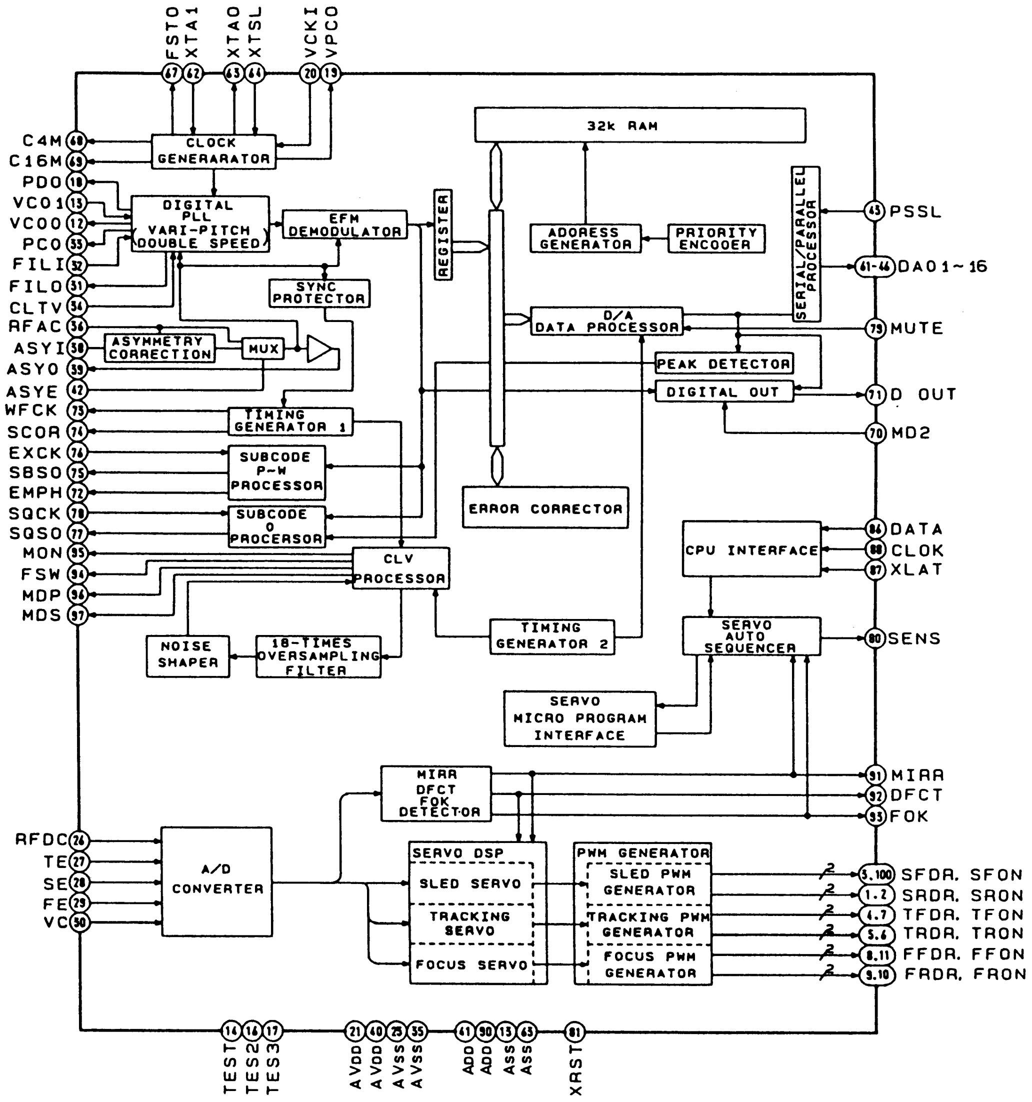


14
15
16
17
18
19
20
21
22
23
24
25
26
27
IC1
DETECTOR, RF AMP
IC1 M52104FP
CN102 12P
VC
TE
FE
FZC
RFO
GND
VCC
LDON
F+
T+
T-
F-
C4 0.1
C3 0.1
FCS BIAS
VR3 2.2K
R3 56k
C1 100 6.3V
R1 10
Q1 2SB1013
C5 0.001
VR1 2.2K
LD POWER
E-F BALANCE
VR2 2.2K
2AXIS MOTOR
OPTICAL PICK-UP BLOCK (KSS-240A)
IC102
TRACKING/COIL DRIVE
SLED/MOTOR DRIVE
M101 SPINDLE MOTOR
M102 SLED MOTOR
C159 0.0068
R159 150k
R158 390k
MUTE
LIMIT.SW
【CD KEY BOARD】
CN602
R616 2.2k
R608 1.6k
R607 1.2k
R615 1.6k
R614 1.2k
DISC SKIP
S418
S417
S416
S409
S408
【CD DISPLAY BOARD】
CN601
CN603
FL601
FLUORECENT INDICATOR TUBE
R600 1.2k
R601 1.6k
R602 2.2k
R603 3.3k
R604 5.6k
R605 11k
R606 33k
PROGRAM
SHUFFLE
CONTINUE
1
2
3
4
5
DISC SELECT
R609 2.2k
R610 3.3k
R611 5.6k
R612 11k
EDIT
CHECK
R617 3.3k
R618 5.6k
R619 11k
REPEAT
TIME
C601 10 50V
C602 10 50V
【CD MAIN BOARD】
IC371
AUDIO AMP
IC371 (1/2) RC4558P
R371 7.5k
R373 7.5k
R375 15k
R377 15k
C371 150p
C373 150p
C374 150p
R374 7.5k
R372 7.5k
R376 15k
R378 15k
C372 150p
C379 100 6.3V
C380 100 6.3V
R383 100k
R384 100k
R385 560
R386 560
C381 560p
C382 560p
C362 0.1
R317 1 1/2W
CN309
TO MAIN BOARD CN702
(See page 31)
R333 1k
D321 1N4148M
Q322 2SC2785TP
R334 4.7k
R335 10k
R336 10k
Q322 SW
C303 0.1
BUSIN
BUSOUT
IC305
REG

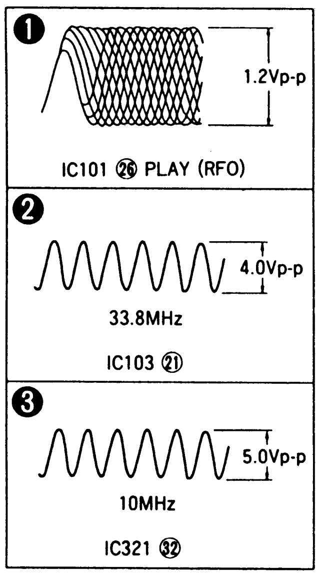

22
23
24
25
26
27
RD]
R616 2.2k
CN602
K0
K1
GND
K1
K0
FL601
FLUORECENT INDICATOR TUBE
C602 10 50V
[CD MAIN BOARD]
C381 560p
C382 560p
CN309
<R>
<L>
<-30V>
<F>
<F>
<+9V>
<MUTEL>
<MUTER>
<R>
<A.GND>
<L>
<-9V>
<D.GND>
<AUBUS>
<M.GND>
<CD.BUSY>
C
TO MAIN BOARD CN702
(See page 31)
R333 1k
D321 1N4148M
Q322 2SC2785-TP
Q322 SW
R334 4.7k
R335 10k
R336 10k
C303 0.1
4.9
0
15

• IC BLOCK DIAGRAMS

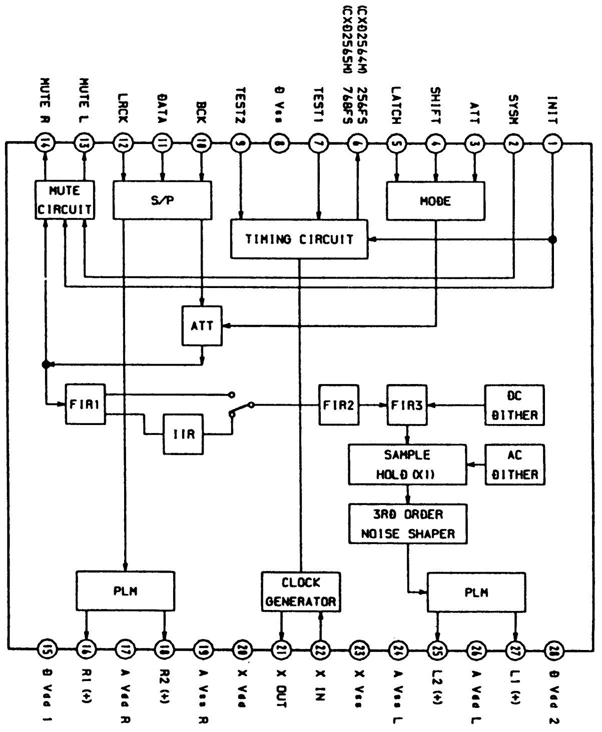
IC101 CXD2515Q


FSTO
XTA1
XTA0
XTSL
VCKI
VPCO
C4M
C16M
PDO
VCO1
VCOO
PCO
FILI
FILO
CLTV
RFAC
ASYI
ASYO
ASYE
WFCK
SCOR
EXCK
SBSO
EMPH
SQCK
SQSO
MON
FSW
MDP
MDS
CLOCK GENERATOR
DIGITAL PLL VARI-PITCH DOUBLE SPEED
EFM DEMODULATOR
SYNC PROTECTOR
ASYMMETRY CORRECTION
MUX
TIMING GENERATOR 1
SUBCODE P-W PROCESSOR
SUBCODE Q PROCESSOR
CLV PROCESSOR
NOISE SHAPER
18-TIMES OVERSAMPLING FILTER
REGISTER
32k RAM
ADDRESS GENERATOR
PRIORITY ENCODER
SERIAL/PARALLEL PROCESSOR
D/A DATA PROCESSOR
PEAK DETECTOR
DIGITAL OUT
ERROR CORRECTOR
CPU INTERFACE
TIMING GENERATOR 2
SERVO AUTO SEQUENCER
SERVO MICRO PROGRAM INTERFACE
MIRR DFCT FOK DETECTOR
A/D CONVERTER
SERVO DSP
SLED SERVO
TRACKING SERVO
FOCUS SERVO
PWM GENERATOR
SLED PWM GENERATOR
TRACKING PWM GENERATOR
FOCUS PWM GENERATOR
PSSL
DA01~16
MUTE
D OUT
MD2
DATA
CLOK
XLAT
SENS
MIRR
DFCT
FOK
SFDR, SFON
SRDR, SRON
TFDR, TFON
TRDR, TRON
FFDR, FFON
FRDR, FRON
RFDC
TE
SE
FE
VC
TEST
TES2
TES3
AVDD
AVDD
AVSS
AVSS
ADD
ADD
ASS
ASS
XRST

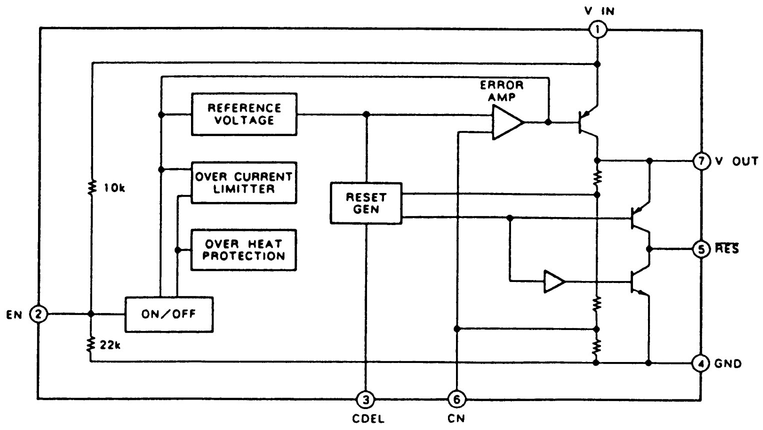
• WAVEFORMS



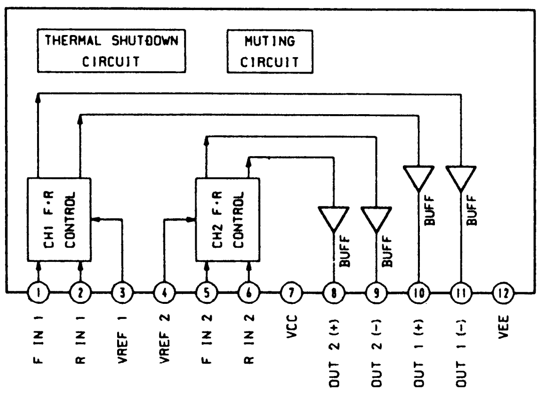
IC103 CXD2565M


MUTE R
MUTE L
LRCK
DATA
BCK
TEST2
B Vss
TEST1
CXD2564M 256FS
CXD2565M 768FS
LATCH
SHIFT
ATT
SYSM
INIT
MUTE CIRCUIT
S/P
TIMING CIRCUIT
MODE
ATT
FIR1
IIR
FIR2
FIR3
DC DITHER
SAMPLE HOLD (X1)
AC DITHER
3RD ORDER NOISE SHAPER
PLM
CLOCK GENERATOR
PLM
B Vdd 1
R1 (+)
A Vdd R
R2 (+)
A Vss R
X Vss
X OUT
X IN
X Vdd
A Vss L
L2 (+)
A Vdd L
L1 (+)
B Vdd 2

IC302 LA5602


V IN
REFERENCE VOLTAGE
ERROR AMP
OVER CURRENT LIMITTER
OVER HEAT PROTECTION
RESET GEN
ON/OFF
10k
22k
EN
V OUT
RES
GND
CDEL
CN

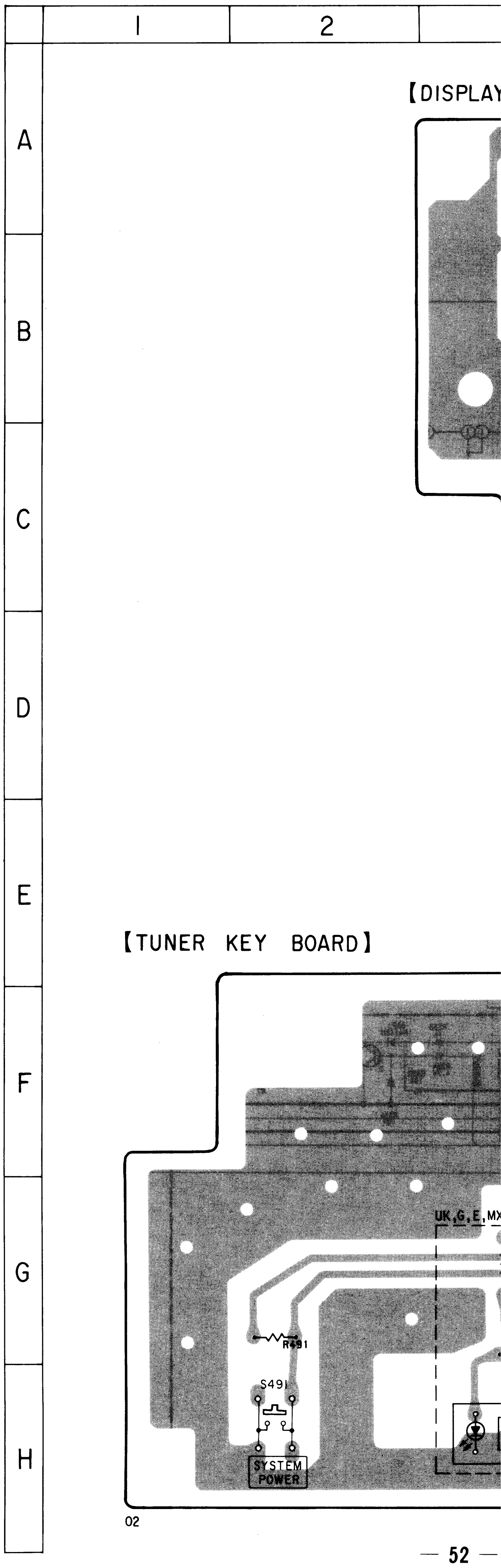
IC341 BA6191


THERMAL SHUTDOWN CIRCUIT
MUTING CIRCUIT
CH1 F·R CONTROL
CH2 F·R CONTROL
BUFF
BUFF
BUFF
BUFF
F IN 1
R IN 1
VREF 1
VREF 2
F IN 2
R IN 2
VCC
OUT 2 (+)
OUT 2 (-)
OUT 1 (+)
OUT 1 (-)
VEE

5-8. PRINTED WIRING BOARDS – PANEL SECTION –

• SEMICONDUCTOR LOCATION

Ref. No.	Location
D401	D - 15
D402	D - 15
D403	C - 11
D404	D - 14
D501	F - 15
D502	E - 15
D503	E - 15
D504	H - 3
D511	B - 10
D512	C - 10
D513	B - 9
D514	B - 10
D515	B - 7
D516	A - 6
D517	A - 5
IC401	C - 12
IC402	B - 15
IC501	B - 10
Q401	C - 11
Q402	C - 14
Q501	G - 16
Q502	F - 15
Q503	F - 15
Q504	H - 4


1
2
A
B
C
D
E
F
G
H
【DISPLAY
【TUNER KEY BOARD】
UK,G,E,MX
R491
S491
SYSTEM POWER
02

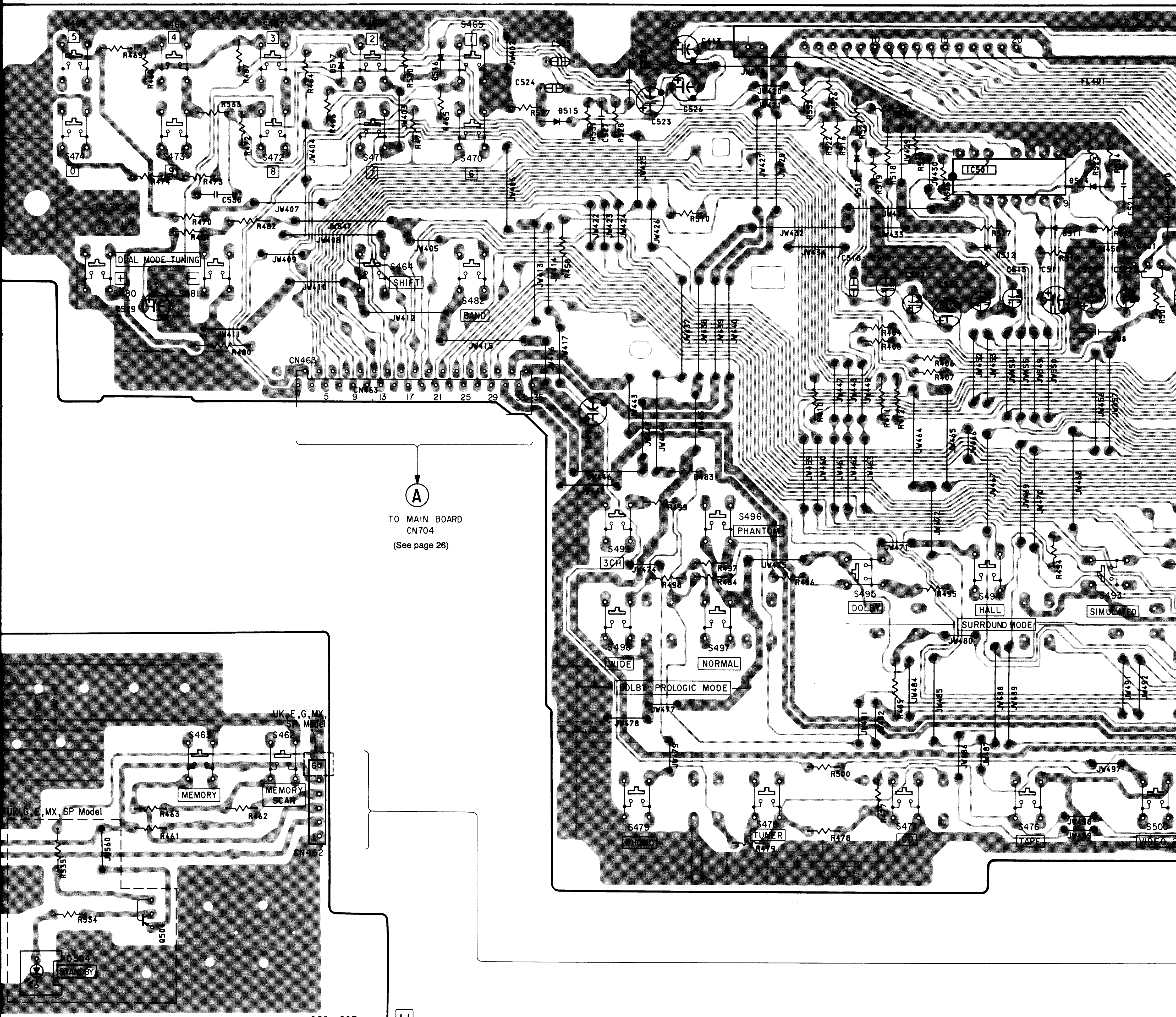
Note:

- ○— : parts extracted from the component side.
- ░ : Pattern on the side which is seen.
- Abbreviation
  G : German
  MX : Mexican
  SP : Singapore

• Refer to page 25 for Semiconductor Lead Layouts.

3	4	5	6	7	8	9	10

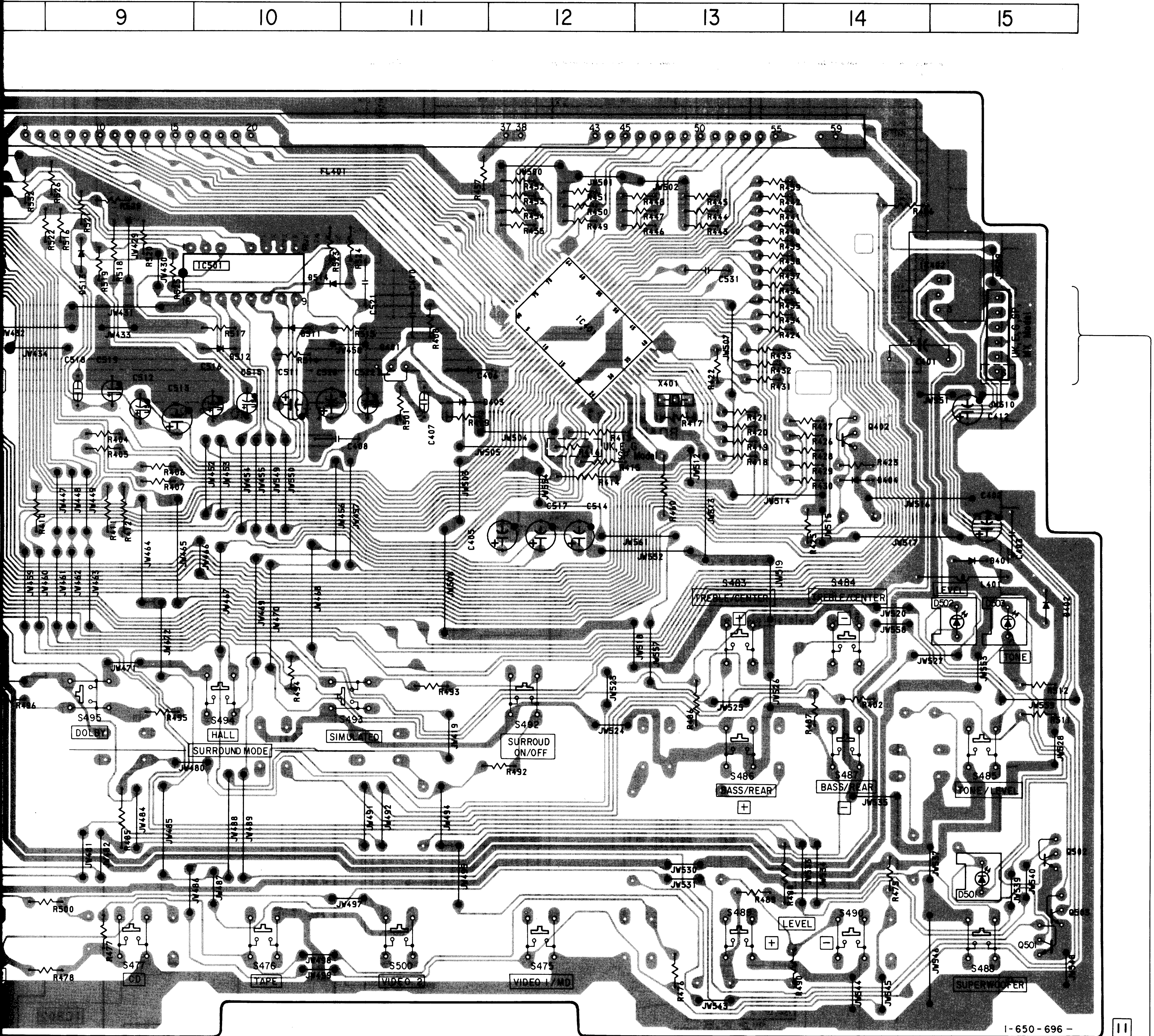
ISPLAY BOARD】



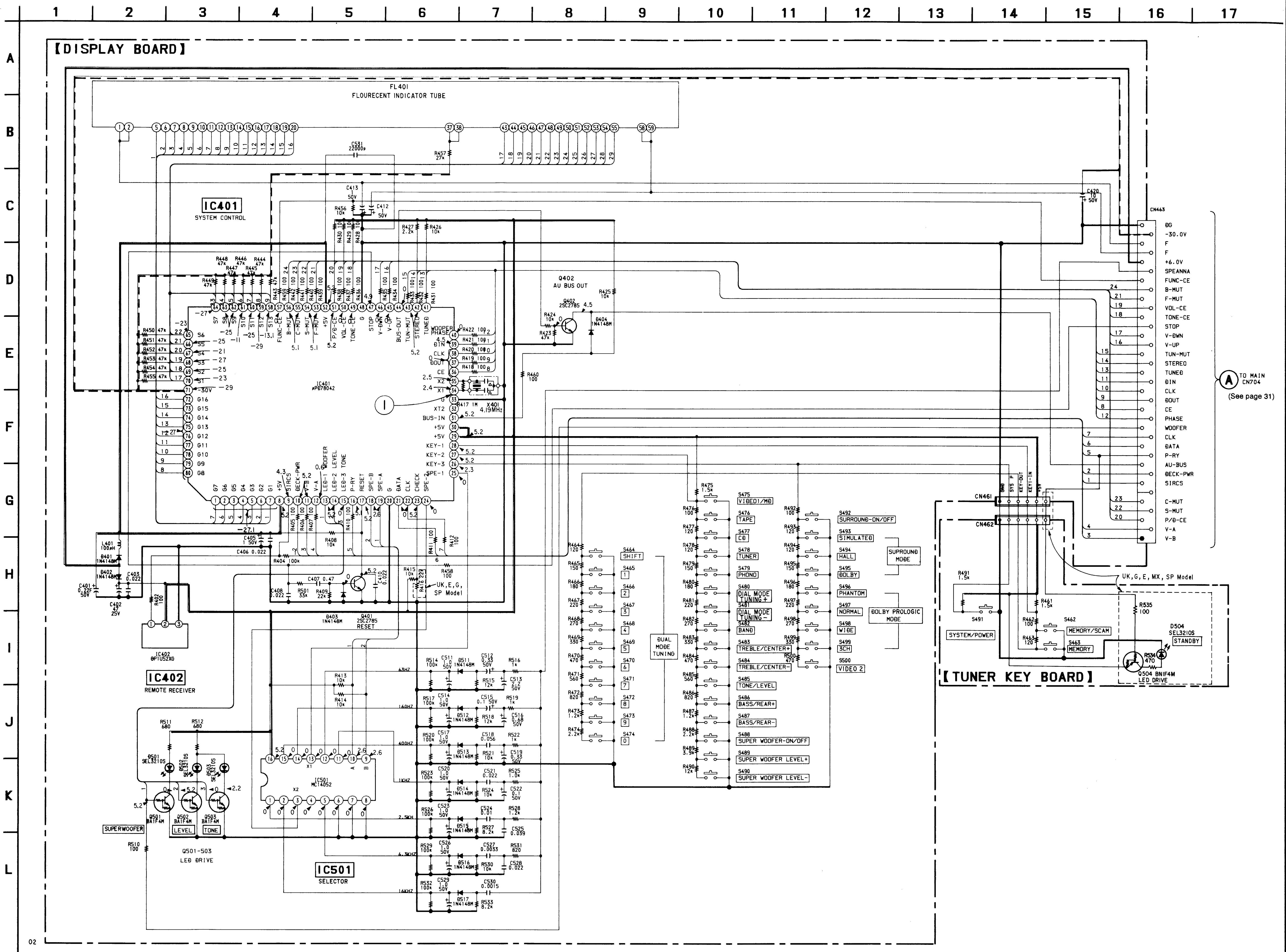
S469
S468
S467
S466
S465
S474
S473
S472
S471
S470
DUAL MODE TUNING
S480
S481
S464
SHIFT
S482
BAND
CN463
1
5
9
13
17
21
25
29
33
35
IC501
FL401
C523
C524
C526
C525
R533
R474
R473
R470
R482
C530
JW407
JW408
JW409
JW410
JW411
JW412
JW415
Q519
R480
S496
PHANTOM
S499
3CH
S495
DOLBY
S494
HALL
S493
SIMULATED
SURROUND MODE
S498
WIDE
S497
NORMAL
DOLBY PROLOGIC MODE
S479
PHONO
S478
TUNER
S477
CD
S476
TAPE
S500
VIDEO
R500
R478
R479
UK,E,G,MX, SP Model
S463
S462
MEMORY
MEMORY SCAN
R463
R462
R461
CN462
UK,G,E,MX,SP Model
R535
JW560
R534
Q504
D504
STANDBY
1-650-697-
11

Ⓐ

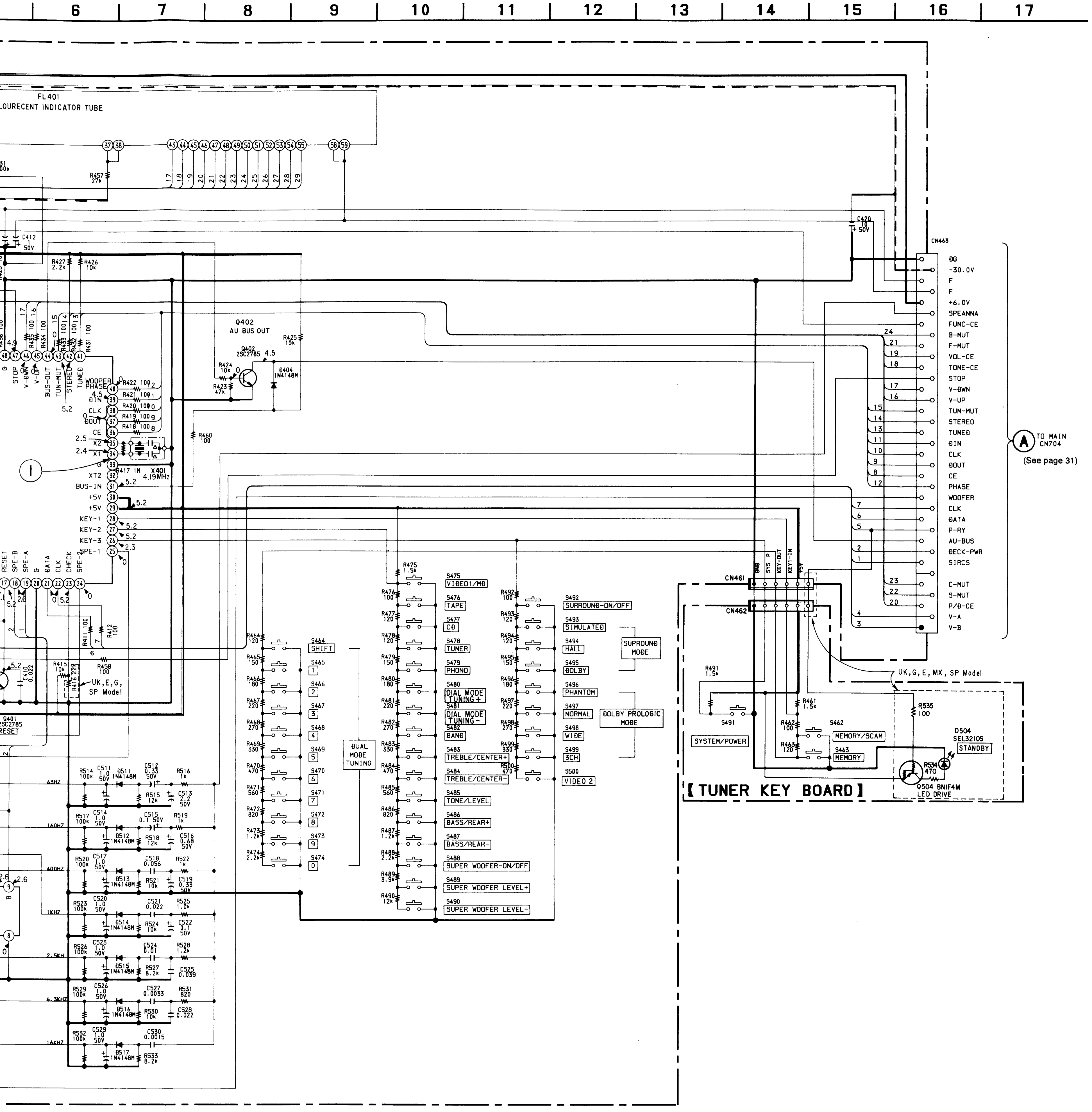
TO MAIN BOARD
CN704
(See page 26)


9
10
11
12
13
14
15
FL401
IC501
IC401
X401
Q401
Q402
Q404
Q501
Q502
Q503
Q510
D501
D502
D503
L401
S483
TREBLE/CENTER
S484
TREBLE/CENTER
LEVEL
TONE
S495
DOLBY
S494
HALL
S493
SIMULATED
SURROUND MODE
S492
SURROUD
ON/OFF
S486
BASS/REAR
S487
BASS/REAR
S485
TONE/LEVEL
S489
S490
LEVEL
S477
CD
S476
TAPE
S500
VIDEO 2
S475
VIDEO 1/MD
S488
SUPERWOOFER
+
−
UK,E,G MODEL
1-650-696-
11

5-9. SCHEMATIC DIAGRAM
– PANEL SECTION –

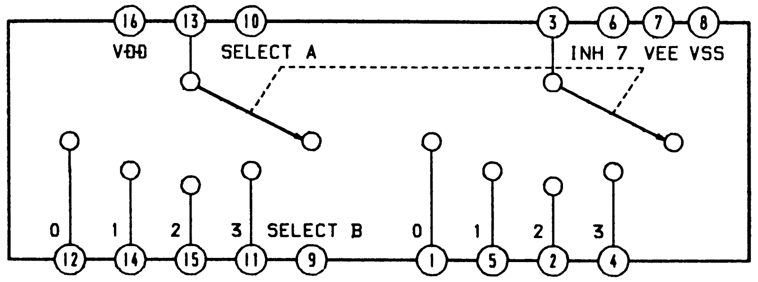


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
A
B
C
D
E
F
G
H
I
J
K
L
【DISPLAY BOARD】
FL401
FLOURECENT INDICATOR TUBE
C531
22000p
R457
27k
C413
50V
C412
50V
R456
10k
R427
2.2k
R426
10k
C420
10
50V
IC401
SYSTEM CONTROL
IC401
μPD78042
R448 47k
R446 47k
R444 47k
R447 47k
R445 47k
R449 47k
R450 47k
R451 47k
R452 47k
R453 47k
R454 47k
R455 47k
S6
S5
S4
S3
S2
S1
-30V
G16
G15
G14
G13
G12
G11
G10
G9
G8
G7
G6
G5
G4
G3
G2
G1
FUNC-CE
B-MUT
C-MUT
S-MUT
F-MUT
+5V
P/D-CE
VOL-CE
TONE-CE
STOP
V-DWN
V-UP
BUS-OUT
TUN-MUT
STEREO
TUNED
WOOFER PHASE
DIN
CLK
DOUT
CE
X2
X1
XT2
BUS-IN
+5V
+5V
KEY-1
KEY-2
KEY-3
SPE-1
SIRCS
BECK-PWR
V-B
V-A
LED-1
LED-2
LED-3
P-RY
RESET
SPE-B
SPE-A
DATA
CLK
CHECK
SPE-2
WOOFER
LEVEL
TONE
R417 1M
X401
4.19MHz
Q402
AU BUS OUT
Q402
2SC2785
R424
10k
R423
47k
R425
10k
D404
1N4148M
R460
100
R422 100
R421 100
R420 100
R419 100
R418 100
L401
100μH
D401
1N4148M
D402
1N4148M
C401
0.22F
50V
C403
0.022
C402
47
25V
R402
100
C405
1
50V
C406 0.022
R404 100k
R408
10k
C407 0.47
C408
0.022
R501
33k
R409
22k
D403
1N4148M
Q401
2SC2785
RESET
R415
10k
R416 220
R458
100
R412
100
R411
100
UK,E,G,
SP Model
IC402
SBX1620-51
IC402
REMOTE RECEIVER
R511
680
R512
680
D501
SEL3210S
D502
SEL3210S
D503
SEL3210S
Q501
BA1F4M
Q502
BA1F4M
Q503
BA1F4M
SUPERWOOFER
LEVEL
TONE
R510
100
Q501-503
LED DRIVE
R413
10k
R414
10k
IC501
MC14052
X1
X2
IC501
SELECTOR
63HZ
160HZ
400HZ
1KHZ
2.5KH
6.3KHZ
16KHZ
R514 100k
C511 1.0 50V
D511 1N4148M
C512 0.33 50V
R516 1k
R515 12k
C513 2.2 50V
R517 100k
C514 1.0 50V
C515 0.1 50V
R519 1k
D512 1N4148M
R518 12k
C516 0.68 50V
R520 100k
C517 1.0 50V
C518 0.056
R522 1k
D513 1N4148M
R521 10k
C519 0.33 50V
R523 100k
C520 1.0 50V
C521 0.022
R525 1.0k
D514 1N4148M
R524 10k
C522 0.1 50V
R526 100k
C523 1.0 50V
C524 0.01
R528 1.2k
D515 1N4148M
R527 8.2k
C525 0.039
R529 100k
C526 1.0 50V
C527 0.0033
R531 820
D516 1N4148M
R530 10k
C528 0.022
R532 100k
C529 1.0 50V
C530 0.0015
D517 1N4148M
R533 8.2k
R464 120
R465 150
R466 180
R467 220
R468 270
R469 330
R470 470
R471 560
R472 820
R473 1.2k
R474 2.2k
S464 SHIFT
S465 1
S466 2
S467 3
S468 4
S469 5
S470 6
S471 7
S472 8
S473 9
S474 0
DUAL MODE TUNING
R475 1.5k
R476 100
R477 120
R478 120
R479 150
R480 180
R481 220
R482 270
R483 330
R484 470
R485 560
R486 820
R487 1.2k
R488 2.2k
R489 3.9k
R490 12k
S475 VIDEO1/MD
S476 TAPE
S477 CD
S478 TUNER
S479 PHONO
S480 DIAL MODE TUNING +
S481 DIAL MODE TUNING −
S482 BAND
S483 TREBLE/CENTER+
S484 TREBLE/CENTER−
S485 TONE/LEVEL
S486 BASS/REAR+
S487 BASS/REAR−
S488 SUPER WOOFER-ON/OFF
S489 SUPER WOOFER LEVEL+
S490 SUPER WOOFER LEVEL−
R492 100
R493 120
R494 120
R495 150
R496 180
R497 220
R498 270
R499 330
R500 470
S492 SURROUND-ON/OFF
S493 SIMULATED
S494 HALL
S495 DOLBY
S496 PHANTOM
S497 NORMAL
S498 WIDE
S499 3CH
S500 VIDEO 2
SUPROUND MODE
DOLBY PROLOGIC MODE
CN461
CN462
GND
SYS P
KEY-OUT
KEY1-IN
+5V
R491
1.5k
S491
SYSTEM/POWER
R461
1.5k
R462
100
R463
120
S462
MEMORY/SCAN
S463
MEMORY
R535
100
D504
SEL3210S
STANDBY
R534
470
Q504 BN1F4M
LED DRIVE
UK,G,E,MX,SP Model
【TUNER KEY BOARD】
CN463
DG
-30.0V
F
F
+6.0V
SPEANNA
FUNC-CE
B-MUT
F-MUT
VOL-CE
TONE-CE
STOP
V-DWN
V-UP
TUN-MUT
STEREO
TUNED
DIN
CLK
DOUT
CE
PHASE
WOOFER
CLK
DATA
P-RY
AU-BUS
DECK-PWR
SIRCS
C-MUT
S-MUT
P/D-CE
V-A
V-B
A
TO MAIN
CN704
(See page 31)
02

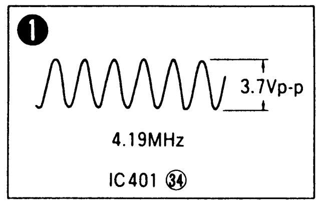

6
7
8
9
10
11
12
13
14
15
16
17
FL401
FLOURECENT INDICATOR TUBE
Q402
AU BUS OUT
Q401
2SC2785
RESET
X401
4.19MHz
CN463
CN461
CN462
BG
-30.0V
F
F
+6.0V
SPEANNA
FUNC-CE
B-MUT
F-MUT
VOL-CE
TONE-CE
STOP
V-DWN
V-UP
TUN-MUT
STEREO
TUNED
DIN
CLK
DOUT
CE
PHASE
WOOFER
CLK
DATA
P-RY
AU-BUS
DECK-PWR
SIRCS
C-MUT
S-MUT
P/D-CE
V-A
V-B
TO MAIN CN704
(See page 31)
S464 SHIFT
S465 1
S466 2
S467 3
S468 4
S469 5
S470 6
S471 7
S472 8
S473 9
S474 0
DUAL MODE TUNING
S475 VIDEO1/MD
S476 TAPE
S477 CD
S478 TUNER
S479 PHONO
S480 DIAL MODE TUNING+
S481 DIAL MODE TUNING-
S482 BAND
S483 TREBLE/CENTER+
S484 TREBLE/CENTER-
S485 TONE/LEVEL
S486 BASS/REAR+
S487 BASS/REAR-
S488 SUPER WOOFER-ON/OFF
S489 SUPER WOOFER LEVEL+
S490 SUPER WOOFER LEVEL-
S492 SURROUND-ON/OFF
S493 SIMULATED
S494 HALL
S495 DOLBY
S496 PHANTOM
S497 NORMAL
S498 WIDE
S499 3CH
S500 VIDEO 2
SURROUND MODE
DOLBY PROLOGIC MODE
S491 SYSTEM/POWER
S462 MEMORY/SCAN
S463 MEMORY
D504 SEL3210S STANDBY
Q504 BN1F4M LED DRIVE
UK,G,E,MX,SP Model
UK,E,G, SP Model
【TUNER KEY BOARD】
63HZ
160HZ
400HZ
1KHZ
2.5KHZ
6.3KHZ
16KHZ

• IC BLOCK DIAGRAM

IC501 MC14052BCP


⑯
⑬
⑩
VDD
SELECT A
③
⑥
⑦
⑧
INH 7 VEE VSS
0
1
2
3
SELECT B
⑫
⑭
⑮
⑪
⑨
0
1
2
3
①
⑤
②
④

• WAVEFORM


❶
3.7Vp-p
4.19MHz
IC401 ㉞

Note :

- All capacitors are in μ F unless otherwise noted. pF: μ μ F 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- ━━━ : B+ Line
- ▬ ▬ ▬ : B − Line
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Abbreviation

G : German
MX : Mexican
SP : Singapore

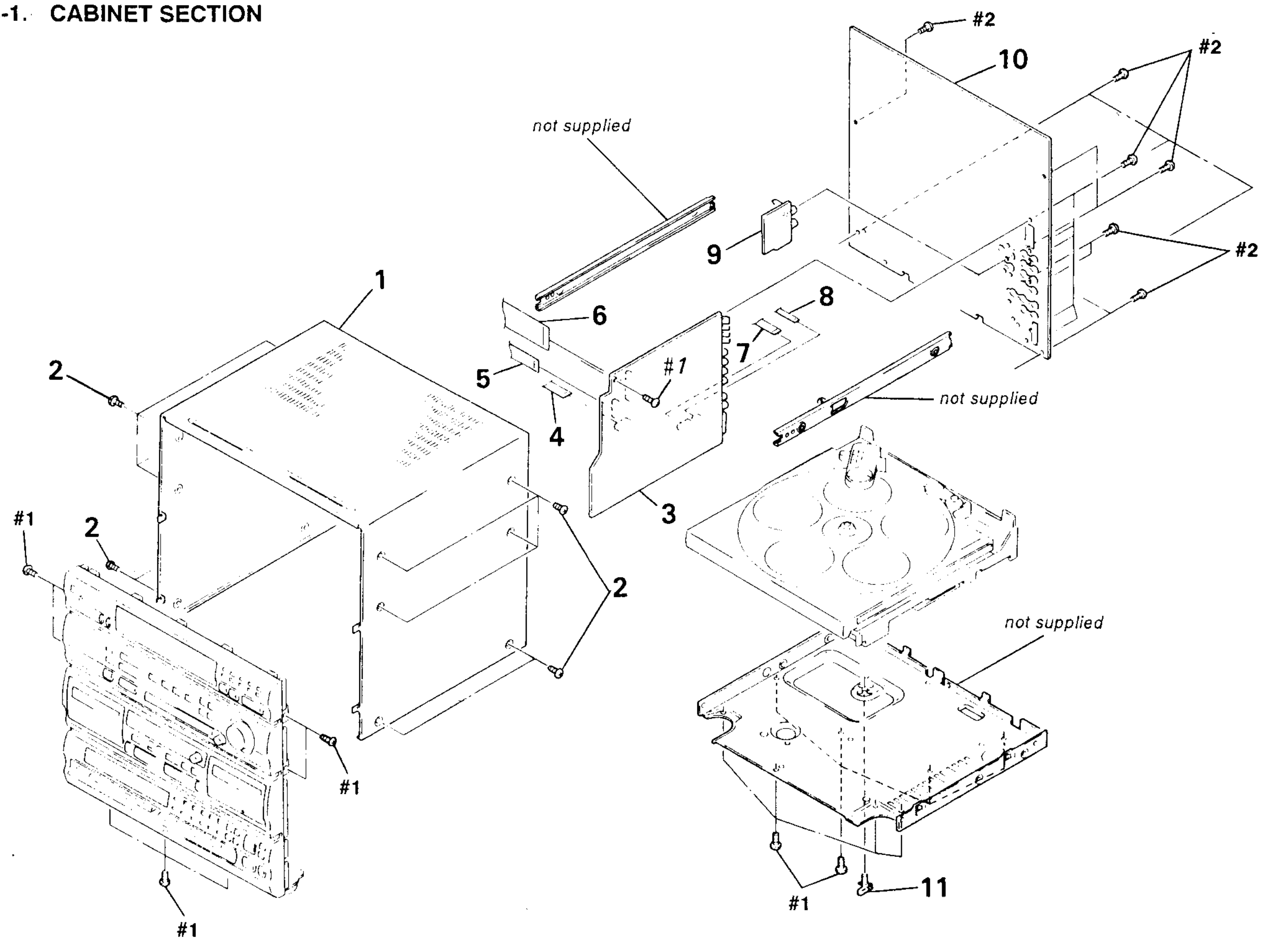
SECTION 6
EXPLODED VIEWS

NOTE :
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
  MX : Mexican
  G : German
  SP : Singapore

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

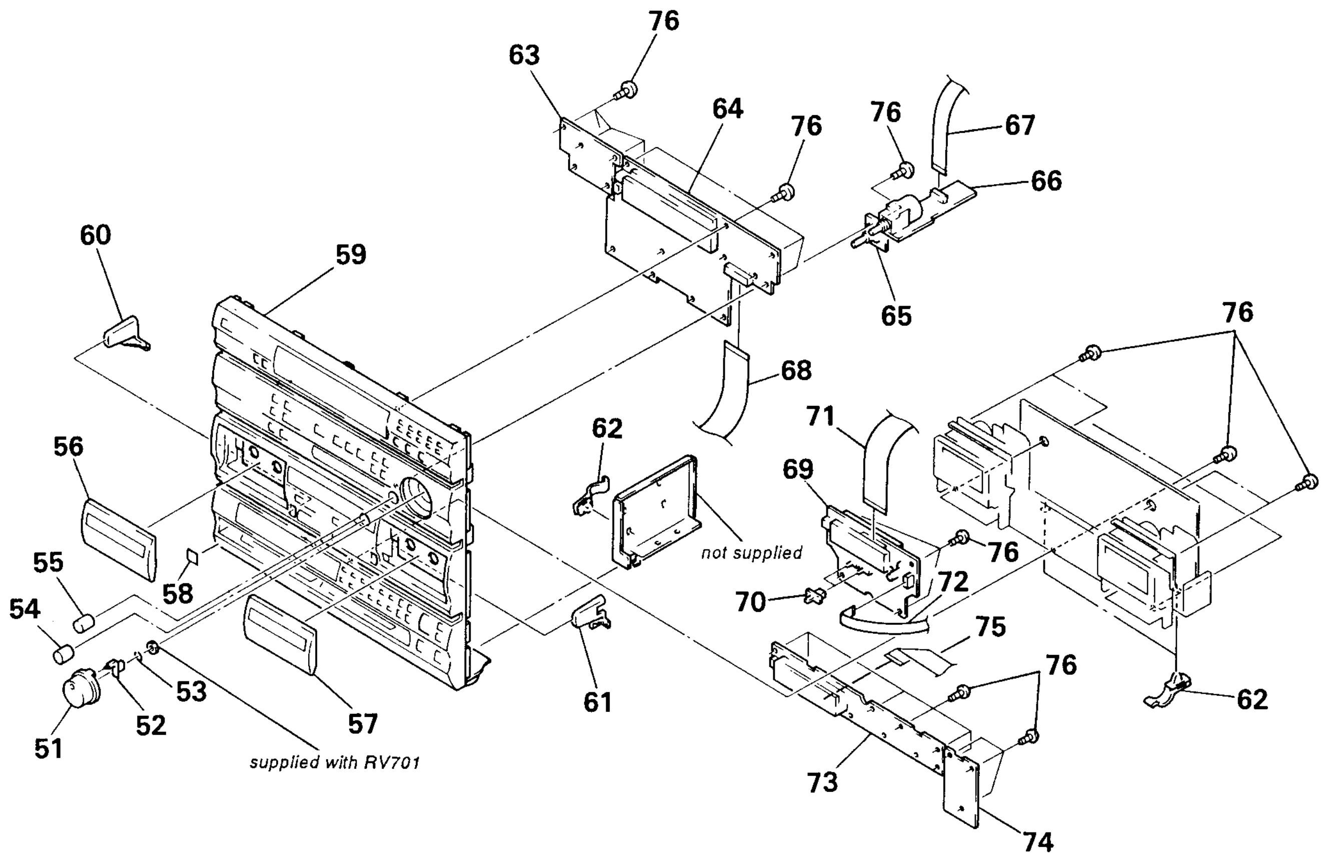
6-1. CABINET SECTION



Ref. No.	Part No.	Description	Remark
1	4-963-265-71	CASE	
2	4-929-973-01	SCREW (CASE, 3 POINT)	
* 3	A-4371-420-A	MAIN BOARD, COMPLETE (US, Canadian, MX)	
* 3	A-4371-422-A	MAIN BOARD, COMPLETE (E, SP)	
* 3	A-4377-733-A	MAIN BOARD, COMPLETE (UK, G)	
4	1-575-906-31	WIRE, FLAT TYPE (15 CORE)	
5	1-696-930-11	WIRE (FLAT TYPE) (17 CORE)	
6	1-765-165-31	WIRE (FLAT TYPE) (35 CORE)	
7	1-765-162-11	CORD, CONNECTION (15 CORE)	

Ref. No.	Part No.	Description	Remark
8	1-575-662-31	WIRE, FLAT TYPE (5 CORE)	
* 9	1-650-639-11	VIDEO BOARD	
* 10	4-971-257-11	PANEL, BACK (US)	
* 10	4-971-257-21	PANEL, BACK (E, SP)	
* 10	4-971-257-31	PANEL, BACK (Canadian)	
* 10	4-971-257-51	PANEL, BACK (MX)	
* 10	4-971-257-61	PANEL, BACK (UK, G)	
11	4-937-945-01	PLATE (TRANSPORT), LOCK	

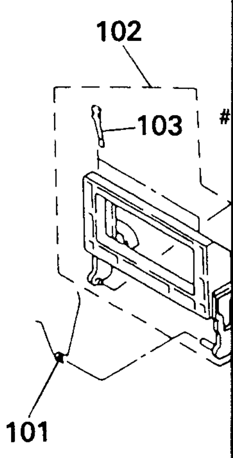
6-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	4-949-659-01	KNOB (VOL-NEW)	
52	4-958-991-01	PLATE (VOL), LIGHT GUIDE	
53	3-350-426-01	SPRING, RING	
54	4-930-784-21	KNOB (SD)	
55	4-930-784-11	KNOB (SD)	
56	A-4361-019-A	LID (A) ASSY, CASSETTE	
57	A-4361-020-A	LID (B) ASSY, CASSETTE	
58	3-703-710-41	STICKER, SONY SYMBOL (12)	
59	A-4361-285-A	PANEL ASSY, FRONT (US, Canadian)	
59	A-4361-286-A	PANEL ASSY, FRONT (UK, E, G, MX, SP)	
60	4-963-255-11	BUTTON (EJECT-1)	
61	4-963-256-11	BUTTON (EJECT-2)	
* 62	3-646-076-00	CLIP (7R), CABLE	
* 63	1-650-697-11	TUNER KEY BOARD	
* 64	A-4371-411-A	DISPLAY BOARD, COMPLETE (US, Canadian)	

Ref. No.	Part No.	Description	Remark
* 64	A-4371-421-A	DISPLAY BOARD, COMPLETE (UK, E, G, SP)	
* 64	A-4371-423-A	DISPLAY BOARD, COMPLETE (MX)	
* 65	1-650-699-11	BALANCE BOARD	
* 66	1-650-698-11	VOLUME BOARD	
67	1-575-906-31	WIRE, FLAT TYPE (15 CORE)	
68	1-765-165-31	WIRE (FLAT TYPE) (35 CORE)	
* 69	A-4371-418-A	TC SW BOARD, COMPLETE	
70	4-963-544-11	KNOB (SLIDE)	
71	1-696-456-11	WIRE (FLAT TYPE) (31 CORE)	
72	1-696-981-11	WIRE (FLAT TYPE) (5 CORE)	
* 73	A-4371-413-A	CD DISP BOARD, COMPLETE	
* 74	1-650-701-11	CD KEY BOARD	
75	1-765-243-11	WIRE (FLAT TYPE) (35 CORE)	
76	4-951-620-01	SCREW (2.6×8), +BVTP	

6-3. TC BLOCK SE



Ref. No.	Part No.
101	3-354-960-0
102	A-4325-164-
103	3-308-823-1
104	3-354-963-0
105	3-354-956-0
106	3-354-962-0
* 107	3-354-954-0
108	3-354-957-0
109	3-354-959-0
110	A-4325-163-

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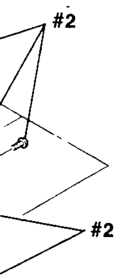
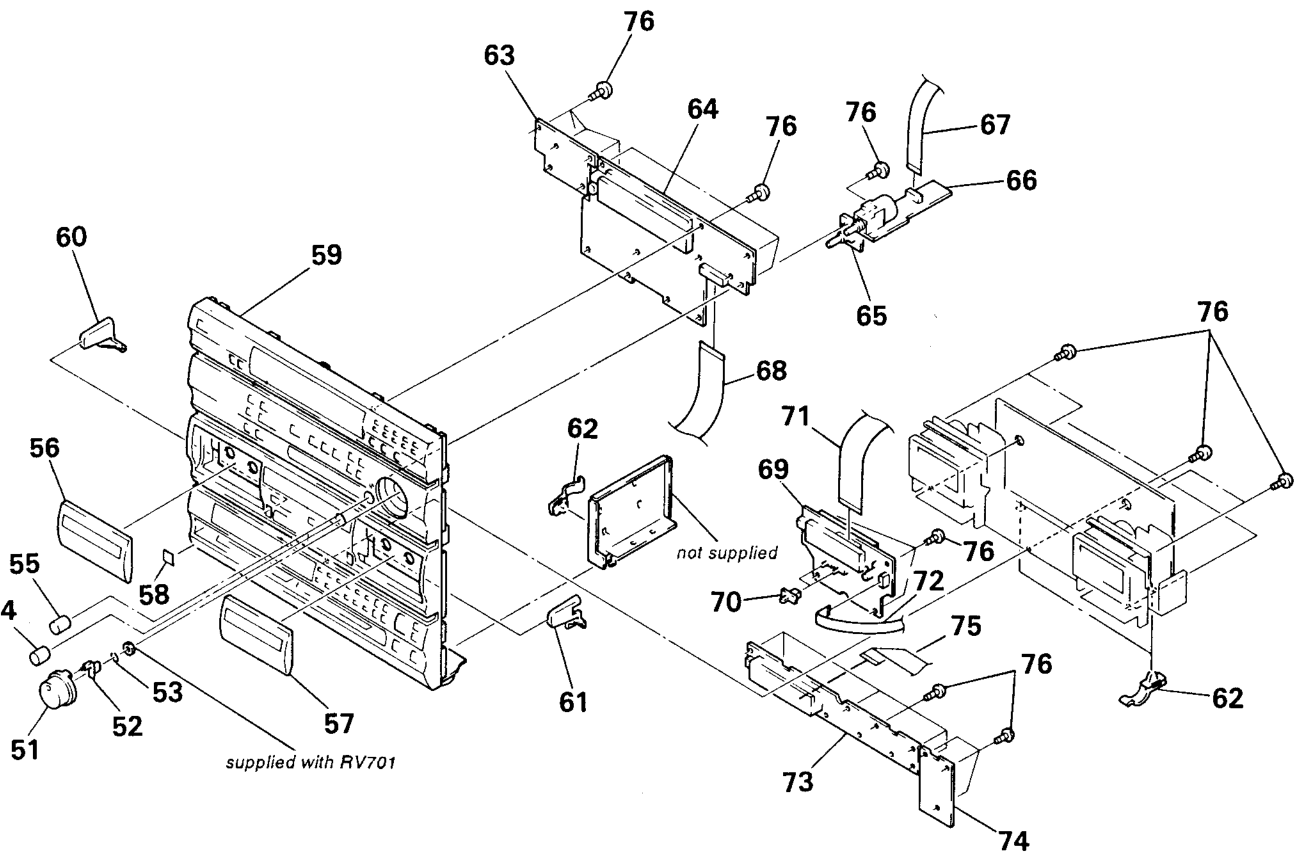


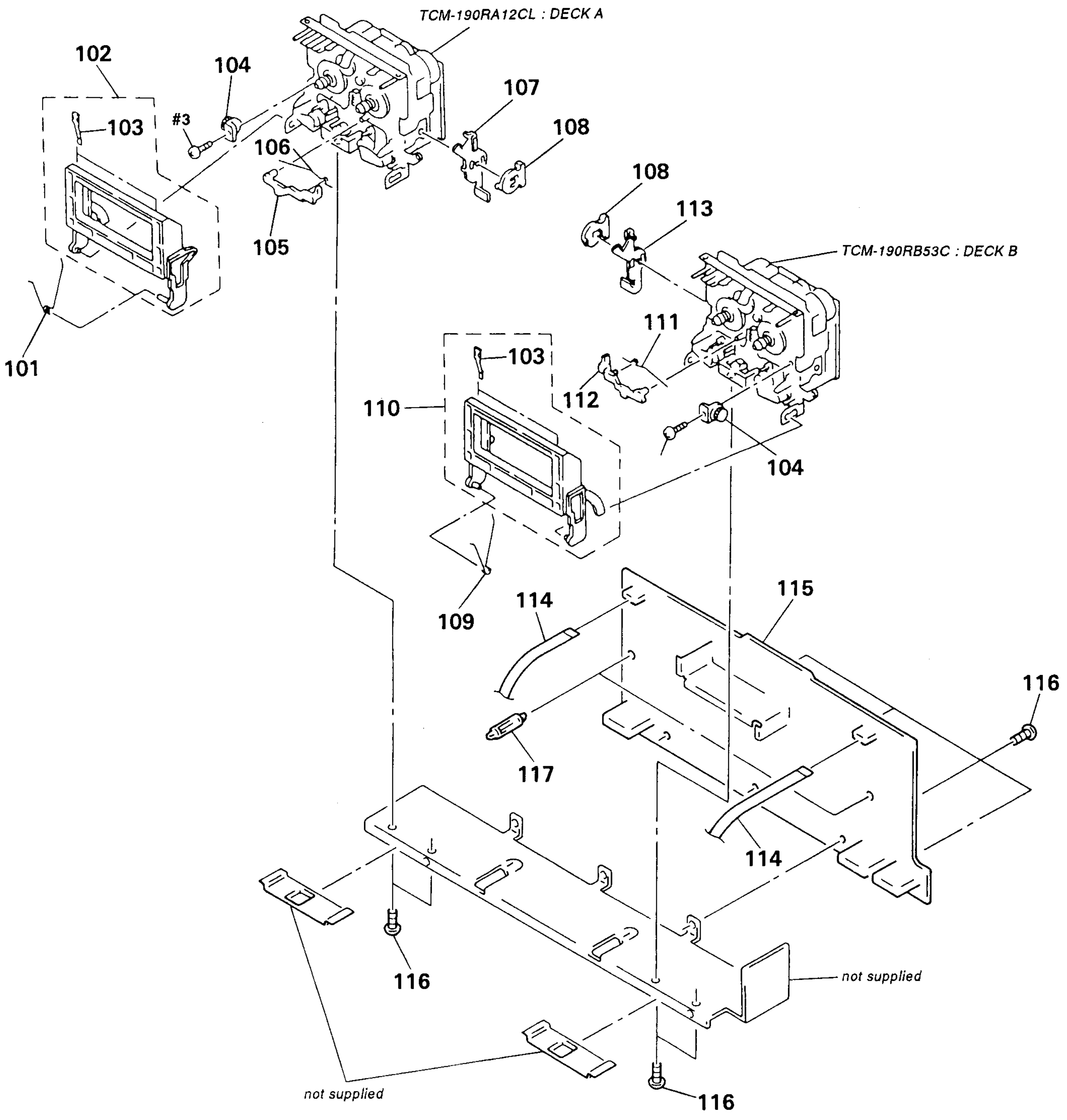
Remark

6-2. FRONT PANEL SECTION


76
63
64
76
76
67
66
65
60
59
76
68
71
62
69
56
not supplied
76
55
58
72
70
54
75
76
53
57
61
62
52
51
73
supplied with RV701
74

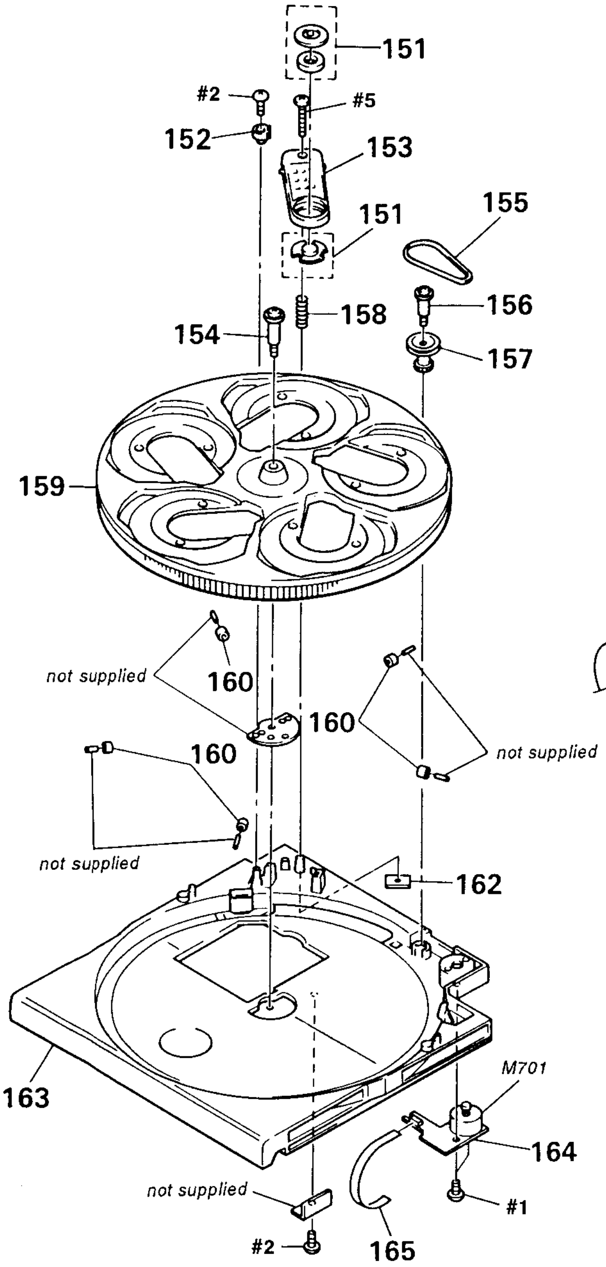
Ref. No.	Part No.	Description	Remark
51	4-949-659-01	KNOB (VOL-NEW)	
52	4-958-991-01	PLATE (VOL), LIGHT GUIDE	
53	3-350-426-01	SPRING, RING	
54	4-930-784-21	KNOB (SD)	
55	4-930-784-11	KNOB (SD)	
56	A-4361-019-A	LID (A) ASSY, CASSETTE	
57	A-4361-020-A	LID (B) ASSY, CASSETTE	
58	3-703-710-41	STICKER, SONY SYMBOL (12)	
59	A-4361-285-A	PANEL ASSY, FRONT (US, Canadian)	
59	A-4361-286-A	PANEL ASSY, FRONT (UK, E, G, MX, SP)	
60	4-963-255-11	BUTTON (EJECT-1)	
61	4-963-256-11	BUTTON (EJECT-2)	
* 62	3-646-076-00	CLIP (7R), CABLE	
* 63	1-650-697-11	TUNER KEY BOARD	
* 64	A-4371-411-A	DISPLAY BOARD, COMPLETE (US, Canadian)	
* 64	A-4371-421-A	DISPLAY BOARD, COMPLETE (UK, E, G, SP)	
* 64	A-4371-423-A	DISPLAY BOARD, COMPLETE (MX)	
* 65	1-650-699-11	BALANCE BOARD	
* 66	1-650-698-11	VOLUME BOARD	
67	1-575-906-31	WIRE, FLAT TYPE (15 CORE)	
68	1-765-165-31	WIRE (FLAT TYPE) (35 CORE)	
* 69	A-4371-418-A	TC SW BOARD, COMPLETE	
70	4-963-544-11	KNOB (SLIDE)	
71	1-696-456-11	WIRE (FLAT TYPE) (31 CORE)	
72	1-696-981-11	WIRE (FLAT TYPE) (5 CORE)	
* 73	A-4371-413-A	CD DISP BOARD, COMPLETE	
* 74	1-650-701-11	CD KEY BOARD	
75	1-765-243-11	WIRE (FLAT TYPE) (35 CORE)	
76	4-951-620-01	SCREW (2.6×8), +BVTP	

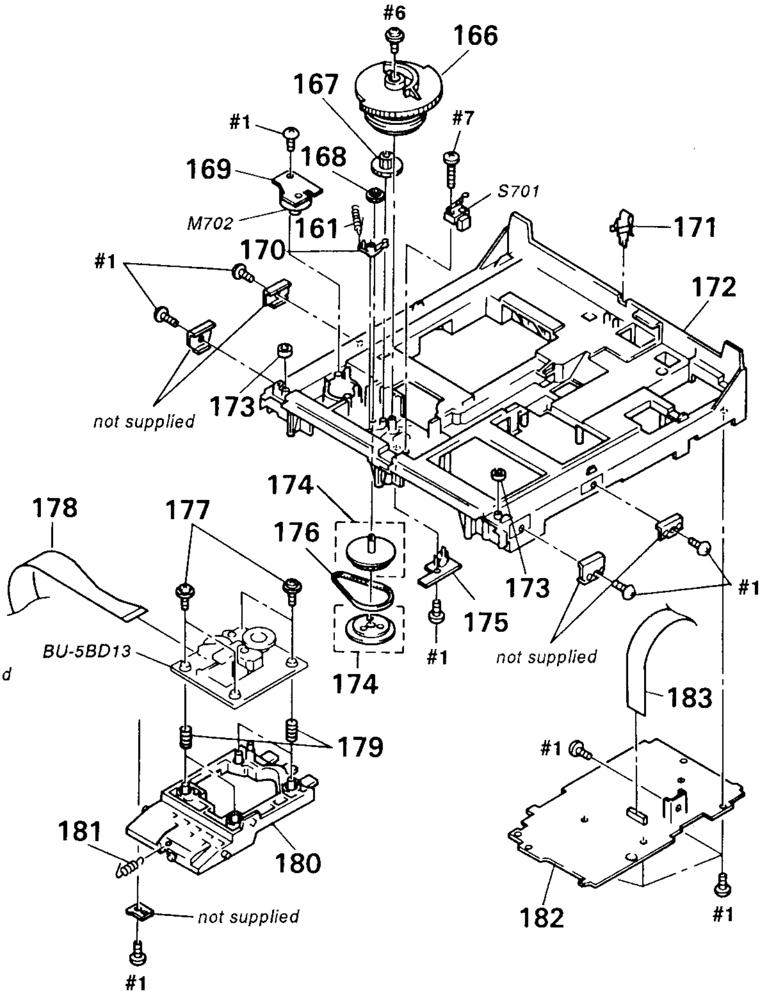
6-3. TC BLOCK SECTION


TCM-190RA12CL : DECK A
102
104
107
103
#3
108
106
108
105
113
TCM-190RB53C : DECK B
101
111
103
110
112
104
109
114
115
116
117
114
116
not supplied
not supplied
116

Ref. No.	Part No.	Description	Remark
101	3-354-960-01	SPRING (LOADING R), TORSION	
102	A-4325-164-A	HOLDER (R) ASSY, CASSETTE	
103	3-308-823-11	DETENT, CASSETTE	
104	3-354-963-01	DAMPER	
105	3-354-956-01	LEVER (EJ SAFTY LEVER R)	
106	3-354-962-01	SPRING (EJ SAFTY SPRING R)	
* 107	3-354-954-01	LEVER (LOCK LEVER R)	
108	3-354-957-01	JOINT (LOCK LEVER)	
109	3-354-959-01	SPRING (LOADING L), TORSION	
110	A-4325-163-A	HOLDER (L) ASSY, CASSETTE	
111	3-354-961-01	SPRING (EJ SAFTY SPRING L)	
112	3-354-955-01	LEVER (EJ SAFTY LEVER L)	
* 113	3-354-953-01	LEVER (LOCK LEVER L)	
* 114	1-590-769-11	WIRE, FLAT TYPE (7 CORE)	
* 115	A-4371-417-A	TC MAIN BOARD, COMPLETE (US, Canadian, E, MX, SP)	
* 115	A-4377-732-A	TC MAIN BOARD, COMPLETE (UK, G)	
116	4-951-620-01	SCREW (2.6×8), +BVTP	
* 117	4-965-065-01	HOLDER, PCB	

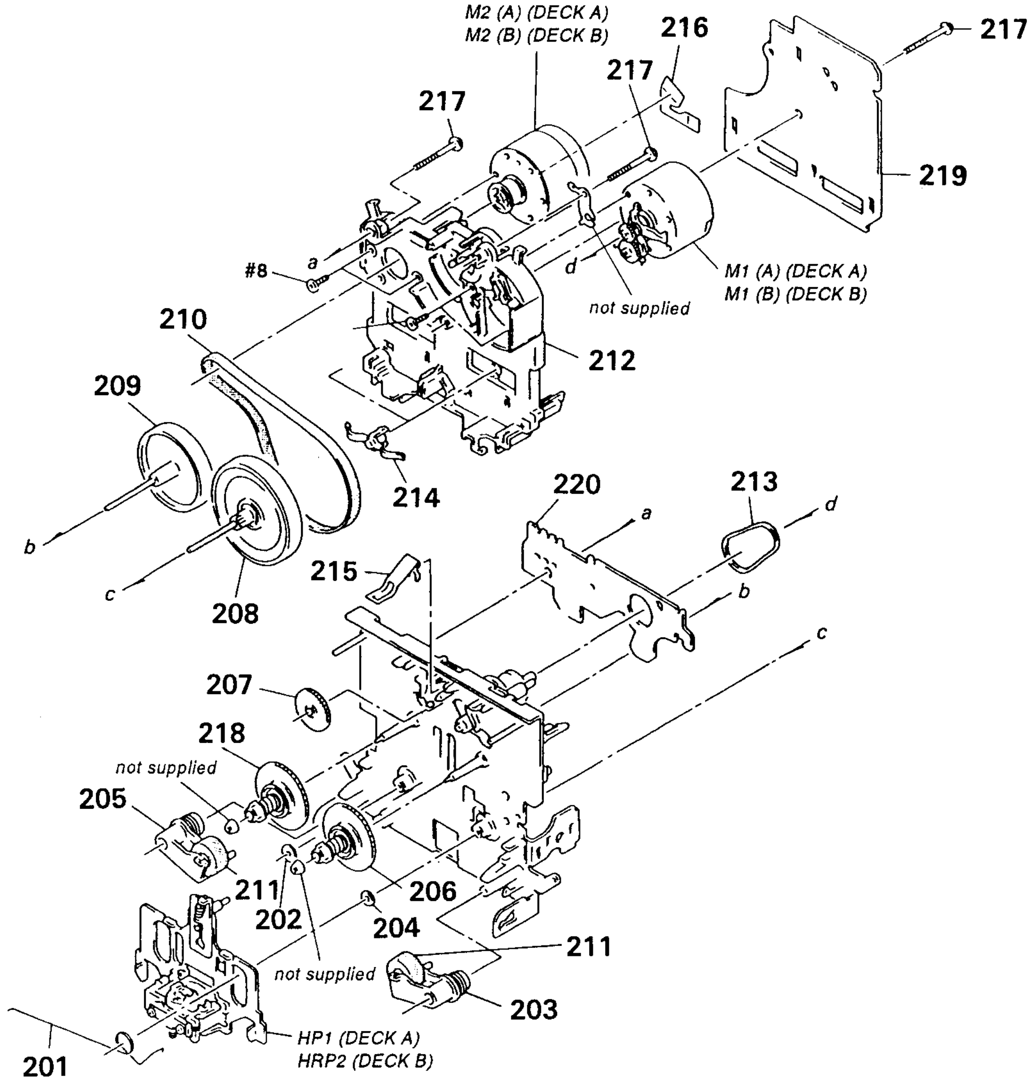
6-4. TRAY SECTION


151
#2
#5
152
153
151
155
154
158
156
157
159
not supplied
160
160
160
not supplied
not supplied
162
163
M701
164
not supplied
#1
#2
165


#6
166
167
#1
#7
169
168
S701
M702
161
171
170
#1
172
not supplied
173
174
178
177
176
173
#1
BU-5BD13
175
#1
not supplied
174
183
179
#1
181
180
not supplied
182
#1
#1

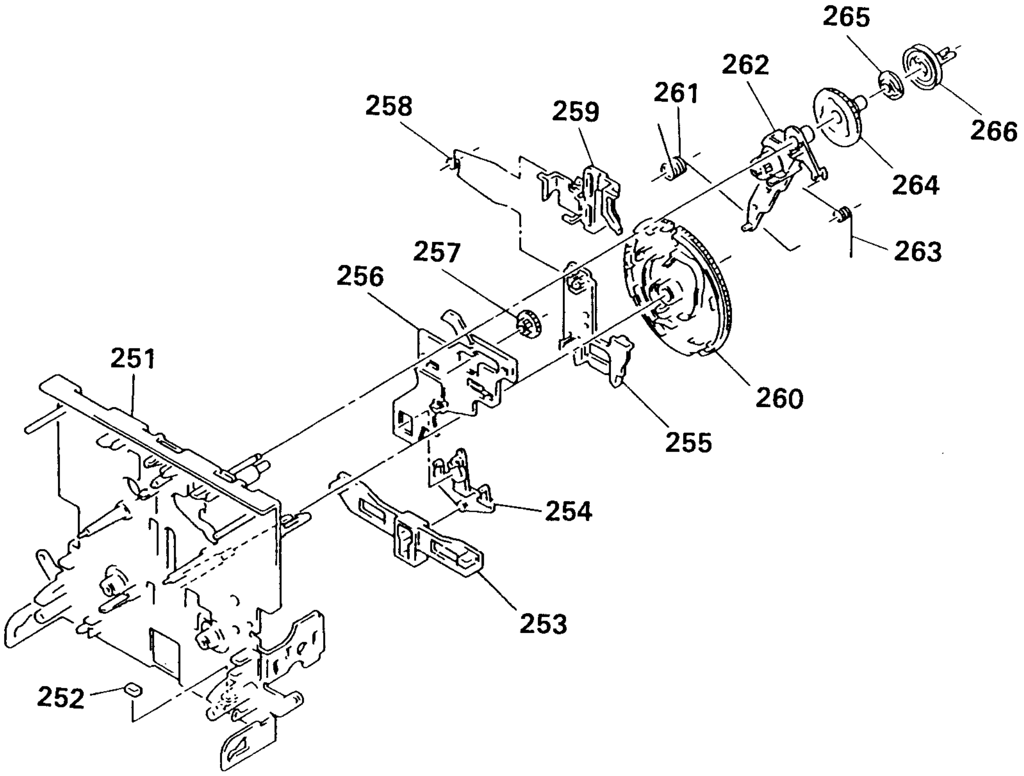
Ref. No.	Part No.	Description	Remark
* 151	1-452-538-11	MAGNET	
* 152	4-949-226-01	PLATE, LOCK	
* 153	4-930-506-02	BRACKET (PRESS PULLEY)	
154	4-926-384-01	SCREW, STEP	
155	4-926-399-01	BELT	
156	4-923-597-01	SCREW, STEP	
157	4-934-380-01	PULLEY (R)	
158	4-926-395-01	SPRING, COMPRESSION	
* 159	4-926-383-01	TABLE (B), DISC	
160	X-4924-457-1	ROLLER ASSY	
161	4-924-412-01	SPRING (B), TENSION	
* 162	4-926-388-01	BRACKET (ADJUSTMENT)	
163	4-944-160-81	TABLE (A), DISC	
164	1-638-729-11	TABLE MOTOR BOARD	
165	1-590-849-11	WIRE, FLAT TYPE (5 CORE)	
166	4-934-391-01	GEAR (LOADING A)	
167	4-934-381-01	GEAR (LOADING C)	
168	4-934-375-01	GEAR (LOADING B)	
169	1-639-288-11	LOADING MOTOR BOARD	
170	4-917-519-01	LEVER, SET	
* 171	4-943-996-06	SPRING, LEAF	
* 172	4-943-997-31	CHASSIS	
* 173	4-951-619-01	CUSHION (A)	
174	X-4941-529-1	PULLEY ASSY	
175	1-638-731-11	OPNE/UP SW BOARD	
176	4-944-490-01	BELT (TIMING)	
177	4-933-134-01	SCREW (+PTPWH M2.6×6)	
178	1-537-645-11	JUMPER, FILM (WITH TERMINAL)	
179	4-958-593-01	SPRING (BU), COMPRESSION	
* 180	4-934-373-01	BRACKET (BU)	
181	4-937-911-01	SPRING, TENSION	
* 182	A-4371-481-A	CD MAIN BOARD, COMPLETE	(US, Canadian, E, MX, SP)
* 182	A-4377-731-A	CD MAIN BOARD, COMPLETE (UK, G)	
183	1-765-162-11	CORD, CONNECTION (15 CORE)	
M701	A-4353-976-A	MOTOR ASSY, ROTARY	
M702	A-4353-974-A	MOTOR ASSY, LOADING	
S701	1-572-713-11	SWITCH, PUSH (WITH CONNECTOR)	

6-5. TC MECHANISM SECTION-1
(TCM-190RA12CL : DECK A)
(TCM-190RB53C : DECK B)


M2 (A) (DECK A)
M2 (B) (DECK B)
216
217
217
217
219
#8
a
d
not supplied
M1 (A) (DECK A)
M1 (B) (DECK B)
210
212
209
214
220
213
a
d
b
b
c
c
215
208
207
218
not supplied
205
206
211
202
204
211
not supplied
203
201
HP1 (DECK A)
HRP2 (DECK B)

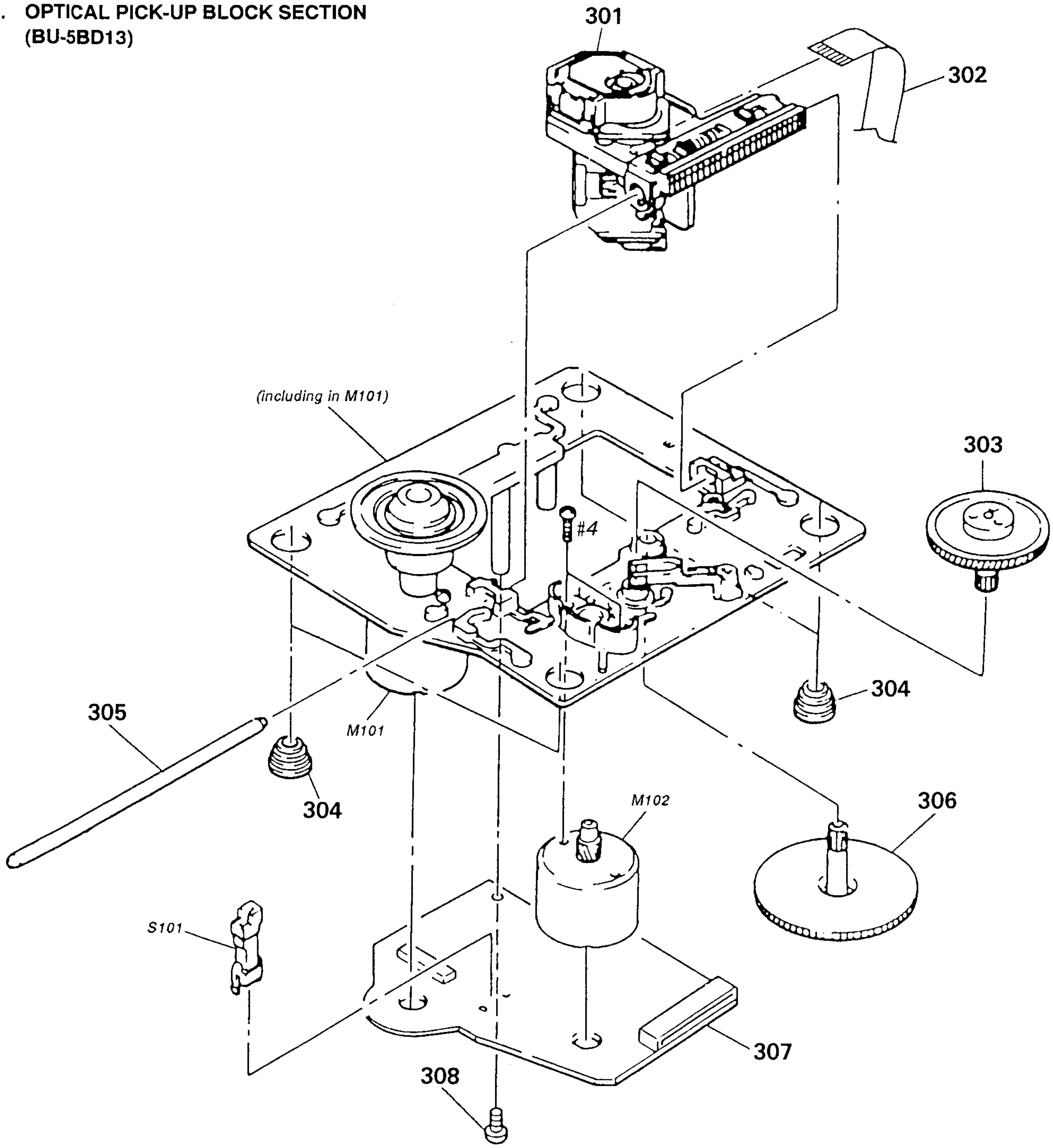
Ref. No.	Part No.	Description	Remark
201	3-907-362-01	SPRING, TORSION	
202	3-356-714-01	WASHER	
203	X-3366-047-1	LEVER (PINCH F) ASSY	
204	3-356-713-01	WASHER	
205	X-3366-048-1	LEVER (PINCH R) ASSY	
206	X-3366-970-1	TABLE ASSY, REEL	
207	3-359-424-01	GEAR (REV GEAR)	
208	X-3367-629-1	FLYWHEEL (FWD) ASSY	
209	X-3367-630-1	FLYWHEEL (REV) ASSY	
210	3-359-417-01	BELT (FLAT), CAPSTAN	
211	3-355-808-21	PINCH ROLLER	
212	3-359-436-11	BASE (THRUST RETAINER), FITTING	
213	3-359-466-11	BELT (FR), SQUARE	
214	3-575-321-00	RETAINER, THRUST, CAPSTAN	
215	3-359-430-01	SPRING (CASSETTE RETAINER), LEAF	
216	1-638-983-11	MOTOR FLEXIBLE BOARD	
217	3-359-414-01	SCREW (+PTPWH 2×23)	
218	X-3366-971-1	TABLE ASSY (B), REEL	
* 219	A-2007-266-A	MD-A BOARD, COMPLETE (DECK A)	
* 219	A-2007-134-A	MD-B BOARD, COMPLETE (DECK B)	
* 220	1-638-020-11	SW-A BOARD (DECK A)	
* 220	1-638-020-11	SW-B BOARD (DECK B)	
HP1	A-2003-757-A	BASE ASSY, HEAD (DECK A)	
HRP2	A-2003-930-A	BASE ASSY, HEAD (DECK B)	
M1(A)	X-3363-501-1	MOTOR ASSY (REEL) (DECK A)	
M1(B)	X-3363-501-1	MOTOR ASSY (REEL) (DECK B)	
M2(A)	X-3365-377-1	MOTOR ASSY (CAPSTAN) (DECK A)	
M2(B)	X-3365-377-1	MOTOR ASSY (CAPSTAN) (DECK B)	

6-6. TC MECHANISM SECTION-2
(TCM-190RA12CL : DECK A)
(TCM-190RB53C : DECK B)



Ref. No.	Part No.	Description	Remark
251	X-3359-415-1	CHASSIS ASSY, MECHANICAL (DECK A)	
251	X-3363-790-1	CHASSIS ASSY, MECHANICAL (DECK B)	
252	3-359-469-01	SPACER	
253	3-359-425-01	SLIDER (REVERSE SLIDER)	
254	3-359-426-01	LEVER (REVERSE LEVER)	
255	3-359-427-01	SLIDER (LEVERSE SLIDER)	
* 256	3-359-415-01	SLIDER (TRIGGER SLIDER) (DECK A)	
256	3-359-415-11	SLIDER (TRIGGER SLIDER) (DECK B)	
257	3-359-448-01	GEAR (TRIGGER)	
258	3-359-454-01	SPRING, TORSION	
259	3-359-429-01	SLIDER (BRAKE PLATE) (DECK A)	
259	3-359-429-11	SLIDER (BRAKE PLATE) (DECK B)	
260	3-359-420-01	GEAR (CAM GEAR)	
261	3-359-456-01	SPRING(TRIGGER SPRING), TORSION	
262	X-3366-569-1	ARM ASSY, FR	
263	3-924-185-11	SPRING (FR ARM), TORSION	
264	3-359-419-11	GEAR (FR GEAR)	
265	3-359-421-01	CLUTCH (REEL DISK)	
266	3-359-418-01	PULLEY (FR PULLEY)	

6-7. OPTICAL PICK-UP BLOCK SECTION
(BU-5BD13)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
⚠301	8-848-144-11	DEVICE, OPTICAL KSS-240A	
302	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
303	4-917-567-01	GEAR (M)	
304	4-951-940-01	INSULATOR (BU)	
305	4-917-565-01	SHAFT, SLED	
306	4-917-564-01	GEAR (P), FLATNESS	
* 307	A-4673-064-A	BD BOARD, COMPLETE	
308	4-951-620-01	SCREW (2.6×8), +BVTP	
M101	X-4917-523-4	BASE (OUTSERT) ASSY (SPINDOLE MOTOR)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	
S101	1-572-085-11	SWITCH, LEAF	

SECTION 7
ELECTRICAL PARTS LIST

BD

NOTE :
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms
  METAL : Metal-film resistor
  METAL OXIDE : Metal oxide-film resistor
  F : nonflammable
- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ , for example :
  uA.... : μ A.... , uPA.... : μ PA....
  uPB.... : μ PB.... , uPC.... : μ PC....
  uPD.... : μ PD....
- CAPACITORS
  uF : μ F
- COILS
  uH : μ H
- Abbreviation
  MX : Mexican
  G : German
  SP : Singapore

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	A-4649-890-A	BD BOARD, COMPLETE ******************			
		< CAPACITOR >			
C101	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C102	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C103	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C105	1-135-155-21	TANTALUM CHIP	4. 7uF	10%	16V
C106	1-164-346-11	CERAMIC CHIP	1uF		16V
C107	1-164-505-11	CERAMIC CHIP	2. 2uF		16V
C108	1-163-035-00	CERAMIC CHIP	0. 047uF		50V
C109	1-163-011-11	CERAMIC CHIP	0. 0015uF	10%	50V
C110	1-163-017-00	CERAMIC CHIP	0. 0047uF	5%	50V
C111	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C112	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C113	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C124	1-164-005-11	CERAMIC CHIP	0. 47uF		25V
C131	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C132	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C133	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C153	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C159	1-163-019-00	CERAMIC CHIP	0. 0068uF	10%	50V
C161	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C177	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C178	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C179	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C181	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C182	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C183	1-135-156-21	TANTALUM CHIP	6. 8uF	10%	10V
C184	1-135-156-21	TANTALUM CHIP	6. 8uF	10%	10V
C185	1-135-156-21	TANTALUM CHIP	6. 8uF	10%	10V
C186	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C187	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C188	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C191	1-163-091-00	CERAMIC CHIP	8PF		50V
C192	1-163-091-00	CERAMIC CHIP	8PF		50V
C193	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C194	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C195	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C196	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C197	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
		< CONNECTOR >			
* CN101	1-580-875-11	SOCKET, CONNECTOR (SMT) 26P			
CN101	1-691-199-21	CONNECTOR, FPC 26P			
CN102	1-565-771-11	CONNECTOR, FPC (1. 0MM)(ZIF)12P			
CN102	1-580-866-11	SOCKET, CONNECTOR (SMT) 12P			
		< IC >			
IC101	8-752-361-90	IC	CXD2515Q		
IC102	8-759-176-09	IC	BA6392FP		
IC103	8-752-367-61	IC	CXD2565AM		
		< COIL >			
L101	1-414-234-11	INDUCTOR, FERRITE BEAD			
L102	1-414-234-11	INDUCTOR, FERRITE BEAD			
L103	1-414-234-11	INDUCTOR, FERRITE BEAD			
L104	1-216-001-00	METAL CHIP	10	5%	1/10W
L105	1-216-295-00	METAL CHIP	0	5%	1/10W
L106	1-414-234-11	INDUCTOR, FERRITE BEAD			
L107	1-216-295-00	METAL CHIP	0	5%	1/10W
L108	1-216-295-00	METAL CHIP	0	5%	1/10W
		< RESISTOR >			
R101	1-216-077-00	METAL CHIP	15K	5%	1/10W
R102	1-216-097-00	METAL CHIP	100K	5%	1/10W
R103	1-216-077-00	METAL CHIP	15K	5%	1/10W
R104	1-216-085-00	METAL CHIP	33K	5%	1/10W
R105	1-216-065-00	METAL CHIP	4. 7K	5%	1/10W
R106	1-216-061-00	METAL CHIP	3. 3K	5%	1/10W
R107	1-216-061-00	METAL CHIP	3. 3K	5%	1/10W
R109	1-216-121-00	METAL CHIP	1M	5%	1/10W
R110	1-216-025-00	METAL CHIP	100	5%	1/10W
R112	1-216-049-00	METAL CHIP	1K	5%	1/10W
R122	1-216-295-00	METAL CHIP	0	5%	1/10W
R123	1-216-073-00	METAL CHIP	10K	5%	1/10W

BD BALANCE CD DISP CD KEY

Ref. No.	Part No.	Description	Remark
R124	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R125	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R126	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R127	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R131	1-216-037-00	METAL CHIP 330 5% 1/10W	
R158	1-216-111-00	METAL CHIP 390K 5% 1/10W	
R159	1-216-101-00	METAL CHIP 150K 5% 1/10W	
R181	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R182	1-216-080-00	METAL CHIP 20K 5% 1/10W	
R183	1-216-080-00	METAL CHIP 20K 5% 1/10W	
R184	1-216-080-00	METAL CHIP 20K 5% 1/10W	
R185	1-216-080-00	METAL CHIP 20K 5% 1/10W	
R187	1-216-035-00	METAL CHIP 270 5% 1/10W	
R188	1-216-121-00	METAL CHIP 1M 5% 1/10W	
R189	1-414-234-11	INDUCTOR, FERRITE BEAD	
		< SWITCH >	
S101	1-572-085-11	SWITCH, LEAF	
		< VIBRATOR >	
X101	1-579-904-11	VIBRATOR, CRYSTAL (33.8MHz)	

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Ref. No.	Part No.	Description	Remark
*	1-650-699-11	BALANCE BOARD *************	
		< VARIABLE RESISTOR >	
RV702	1-238-965-21	RES, VAR, CARBON 100K/100K (BALANCE)	

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Ref. No.	Part No.	Description	Remark
*	A-4371-413-A	CD DISP BOARD, COMPLETE **********************	
		< CAPACITOR >	
C601	1-124-907-11	ELECT 10uF 20% 50V	
C602	1-124-907-11	ELECT 10uF 20% 50V	
		< CONNECTOR >	
* CN601	1-569-799-11	PLUG, CONNECTOR 5P	
CN603	1-764-403-11	SOCKET, CONNECTOR 35P	
		< FLUORESCENT INDICATOR TUBE >	
FL601	1-519-721-11	INDICATOR TUBE, FLUORESCENT	
		< RESISTOR >	
R600	1-249-418-11	CARBON 1.2K 5% 1/4W	
R601	1-247-836-11	CARBON 1.6K 5% 1/4W	
R602	1-249-421-11	CARBON 2.2K 5% 1/4W	
R603	1-249-423-11	CARBON 3.3K 5% 1/4W	
R604	1-249-426-11	CARBON 5.6K 5% 1/4W	
R605	1-247-856-00	CARBON 11K 5% 1/4W	
R606	1-249-435-11	CARBON 33K 5% 1/4W	
R609	1-249-421-11	CARBON 2.2K 5% 1/4W	
R610	1-249-423-11	CARBON 3.3K 5% 1/4W	
R611	1-249-426-11	CARBON 5.6K 5% 1/4W	
R612	1-247-856-00	CARBON 11K 5% 1/4W	
R617	1-249-423-11	CARBON 3.3K 5% 1/4W	
R618	1-249-426-11	CARBON 5.6K 5% 1/4W	
R619	1-247-856-00	CARBON 11K 5% 1/4W	
		< SWITCH >	
S600	1-554-303-21	SWITCH, TACTILE (PROGRAM)	
S601	1-554-303-21	SWITCH, TACTILE (SHUFFLE)	
S602	1-554-303-21	SWITCH, TACTILE (CONTINUE)	
S603	1-554-303-21	SWITCH, TACTILE (DISK SELECT 1)	
S604	1-554-303-21	SWITCH, TACTILE (DISK SELECT 2)	
S605	1-554-303-21	SWITCH, TACTILE (DISK SELECT 3)	
S606	1-554-303-21	SWITCH, TACTILE (DISK SELECT 4)	
S607	1-554-303-21	SWITCH, TACTILE (DISK SELECT 5)	
S610	1-554-303-21	SWITCH, TACTILE (◀◀)	
S611	1-554-303-21	SWITCH, TACTILE (EDIT)	
S612	1-554-303-21	SWITCH, TACTILE (CHECK)	
S614	1-554-303-21	SWITCH, TACTILE (⏮)	
S619	1-554-303-21	SWITCH, TACTILE (▶▶)	
S620	1-554-303-21	SWITCH, TACTILE (REPEAT)	
S621	1-554-303-21	SWITCH, TACTILE (TIME)	
S622	1-554-303-21	SWITCH, TACTILE (⏭)	

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Ref. No.	Part No.	Description	Remark
*	1-650-701-11	CD KEY BOARD ***********	
		< CONNECTOR >	
* CN602	1-565-481-11	CONNECTOR, BOARD TO BOARD 5P	
		< RESISTOR >	
R607	1-249-418-11	CARBON 1.2K 5% 1/4W	
R608	1-247-836-11	CARBON 1.6K 5% 1/4W	
R614	1-249-418-11	CARBON 1.2K 5% 1/4W	
R615	1-247-836-11	CARBON 1.6K 5% 1/4W	
R616	1-249-421-11	CARBON 2.2K 5% 1/4W	
		< SWITCH >	
S608	1-554-303-21	SWITCH, TACTILE (⏏)	
S609	1-554-303-21	SWITCH, TACTILE (DISK SKIP)	
S616	1-554-303-21	SWITCH, TACTILE (■)	
S617	1-554-303-21	SWITCH, TACTILE (▷)	
S618	1-554-303-21	SWITCH, TACTILE (❚❚)	

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Ref. No.	Part No.	Description			Remark
*	A-4371-481-A	CD MAIN BOARD, COMPLETE (US, Canadian, E, MX, SP)			
*	A-4377-731-A	CD MAIN BOARD, COMPLETE (UK, G)			
		***********************			
		< CAPACITOR >			
C303	1-164-159-11	CERAMIC	0.1uF		50V
C306	1-126-001-11	ELECT	3300uF	20%	10V
C307	1-126-163-11	ELECT	4.7uF	20%	50V
C308	1-124-472-11	ELECT	470uF	20%	10V
C309	1-124-473-11	ELECT	1000uF	20%	10V
C311	1-126-300-11	ELECT	0.47uF	20%	50V
C312	1-124-472-11	ELECT	470uF	20%	10V
C315	1-126-163-11	ELECT	4.7uF	20%	50V
C317	1-126-022-11	ELECT	47uF	20%	16V
C321	1-126-022-11	ELECT	47uF	20%	16V
C322	1-161-494-00	CERAMIC	0.022uF		25V
C323	1-161-494-00	CERAMIC	0.022uF		25V
C327	1-162-294-31	CERAMIC	0.001uF	10%	50V
C328	1-162-294-31	CERAMIC	0.001uF	10%	50V
C329	1-162-294-31	CERAMIC	0.001uF	10%	50V
C341	1-124-473-11	ELECT	1000uF	20%	10V
C362	1-164-159-11	CERAMIC	0.1uF		50V
C366	1-162-282-31	CERAMIC	100PF	10%	50V
C371	1-162-284-31	CERAMIC	150PF	10%	50V
C372	1-162-284-31	CERAMIC	150PF	10%	50V
C373	1-162-284-31	CERAMIC	150PF	10%	50V
C374	1-162-284-31	CERAMIC	150PF	10%	50V
C379	1-124-443-00	ELECT	100uF	20%	10V
C380	1-124-443-00	ELECT	100uF	20%	10V
C381	1-162-291-31	CERAMIC	560PF	10%	50V
C382	1-162-291-31	CERAMIC	560PF	10%	50V
		< CONNECTOR >			
CN301	1-764-649-11	CONNECTOR, FFC/FPC 35P			
* CN303	1-568-943-11	PIN, CONNECTOR 5P			
CN305	1-750-997-11	CONNECTOR, FFC/FPC 5P			
CN306	1-764-415-11	CONNECTOR, FFC/FPC 26P			
* CN309	1-568-834-11	SOCKET, CONNECTOR 15P			
		< DIODE >			
D321	8-719-987-63	DIODE	1N4148M		
D341	8-719-010-42	DIODE	UZ-5.6BSB		
		< IC >			
IC302	8-759-061-65	IC	LA5602		
IC304	8-759-805-37	IC	L78LR05D		
IC305	8-759-605-00	IC	M5F78M07L		
IC321	8-752-854-58	IC	CXP82316-038Q		

Ref. No.	Part No.	Description			Remark
IC341	8-759-172-31	IC	BA6191		
IC371	8-759-145-58	IC	uPC4558C		
		< INDUCTOR >			
JW346	1-412-473-21	INDUCTOR	0UH		
		< TRANSISTOR >			
Q302	8-729-900-65	TRANSISTOR	DTA144ES		
Q303	8-729-900-89	TRANSISTOR	DTC144ES		
Q321	8-729-900-89	TRANSISTOR	DTC144ES		
Q322	8-729-119-78	TRANSISTOR	2SC403SP-51		
Q352	8-729-900-65	TRANSISTOR	DTA144ES		
Q353	8-729-900-65	TRANSISTOR	DTA144ES		
		< RESISTOR >			
R308	1-260-064-11	CARBON	1	5%	1/2W
R312	1-249-417-11	CARBON	1K	5%	1/4W
R317	1-260-064-11	CARBON	1	5%	1/2W
R321	1-249-429-11	CARBON	10K	5%	1/4W
R322	1-249-429-11	CARBON	10K	5%	1/4W
R323	1-249-417-11	CARBON	1K	5%	1/4W
R324	1-249-428-11	CARBON	8.2K	5%	1/4W
R325	1-249-428-11	CARBON	8.2K	5%	1/4W
R326	1-249-428-11	CARBON	8.2K	5%	1/4W
R327	1-249-428-11	CARBON	8.2K	5%	1/4W
R328	1-249-428-11	CARBON	8.2K	5%	1/4W
R329	1-249-428-11	CARBON	8.2K	5%	1/4W
R332	1-249-441-11	CARBON	100K	5%	1/4W
R333	1-249-417-11	CARBON	1K	5%	1/4W
R334	1-249-425-11	CARBON	4.7K	5%	1/4W
R335	1-249-429-11	CARBON	10K	5%	1/4W
R336	1-249-429-11	CARBON	10K	5%	1/4W
R338	1-249-425-11	CARBON	4.7K	5%	1/4W
R339	1-249-425-11	CARBON	4.7K	5%	1/4W
R340	1-249-425-11	CARBON	4.7K	5%	1/4W
R341	1-247-876-11	CARBON	75K	5%	1/4W
R342	1-247-876-11	CARBON	75K	5%	1/4W
R343	1-247-876-11	CARBON	75K	5%	1/4W
R344	1-247-876-11	CARBON	75K	5%	1/4W
R345	1-249-423-11	CARBON	3.3K	5%	1/4W
R346	1-249-424-11	CARBON	3.9K	5%	1/4W
R347	1-249-415-11	CARBON	680	5%	1/4W
R348	1-247-834-11	CARBON	1.3K	5%	1/4W
R352	1-249-441-11	CARBON	100K	5%	1/4W
R353	1-249-441-11	CARBON	100K	5%	1/4W
R359	1-249-417-11	CARBON	1K	5%	1/4W
R360	1-249-417-11	CARBON	1K	5%	1/4W
R361	1-249-429-11	CARBON	10K	5%	1/4W

CD MAIN DISPLAY

Ref. No.	Part No.	Description			Remark
R363	1-249-417-11	CARBON	1K	5%	1/4W
R365	1-249-417-11	CARBON	1K	5%	1/4W
R366	1-249-417-11	CARBON	1K	5%	1/4W
R367	1-249-417-11	CARBON	1K	5%	1/4W
R368	1-249-417-11	CARBON	1K	5%	1/4W
R371	1-247-852-11	CARBON	7.5K	5%	1/4W
R372	1-247-852-11	CARBON	7.5K	5%	1/4W
R373	1-247-852-11	CARBON	7.5K	5%	1/4W
R374	1-247-852-11	CARBON	7.5K	5%	1/4W
R375	1-249-431-11	CARBON	15K	5%	1/4W
R376	1-249-431-11	CARBON	15K	5%	1/4W
R377	1-249-431-11	CARBON	15K	5%	1/4W
R378	1-249-431-11	CARBON	15K	5%	1/4W
R383	1-249-441-11	CARBON	100K	5%	1/4W
R384	1-249-441-11	CARBON	100K	5%	1/4W
R385	1-249-414-11	CARBON	560	5%	1/4W
R386	1-249-414-11	CARBON	560	5%	1/4W

< VIBRATOR >

Ref. No.	Part No.	Description
X321	1-579-175-11	VIBRATOR, CERAMIC (10MHz)

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Ref. No.	Part No.	Description
*	A-4371-411-A	DISPLAY BOARD, COMPLETE (US, Canadian)
*	A-4371-421-A	DISPLAY BOARD, COMPLETE (UK, E, G, SP)
*	A-4371-423-A	DISPLAY BOARD, COMPLETE (MX)

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Ref. No.	Part No.	Description
*	4-921-941-01	CUSHION (FL)
*	4-950-864-01	HOLDER (FL)
*	4-952-115-01	HOLDER, FL TUBE

< CAPACITOR >

Ref. No.	Part No.	Description			Remark
C401	1-125-486-11	DOUBLE LAYERS	0.22F		5.5V
C402	1-124-477-11	ELECT	47uF	20%	25V
C403	1-161-494-00	CERAMIC	0.022uF		25V
C405	1-124-903-11	ELECT	1uF	20%	50V
C406	1-161-494-00	CERAMIC	0.022uF		25V
C407	1-136-173-00	FILM	0.47uF	5%	50V
C408	1-161-494-00	CERAMIC	0.022uF		25V
C410	1-161-494-00	CERAMIC	0.022uF		25V
C412	1-124-903-11	ELECT	1uF	20%	50V
C413	1-124-903-11	ELECT	1uF	20%	50V
C420	1-124-907-11	ELECT	10uF	20%	50V
C511	1-124-903-11	ELECT	1uF	20%	50V
C512	1-124-252-00	ELECT	0.33uF	20%	50V
C513	1-124-925-11	ELECT	2.2uF	20%	100V
C514	1-124-903-11	ELECT	1uF	20%	50V
C515	1-124-463-00	ELECT	0.1uF	20%	50V
C516	1-124-254-00	ELECT	0.68uF	20%	50V
C517	1-124-903-11	ELECT	1uF	20%	50V
C518	1-130-492-11	MYLAR	0.056uF	5%	50V
C519	1-124-252-00	ELECT	0.33uF	20%	50V
C520	1-124-903-11	ELECT	1uF	20%	50V
C521	1-161-494-00	CERAMIC	0.022uF		25V
C522	1-124-463-00	ELECT	0.1uF	20%	50V
C523	1-124-903-11	ELECT	1uF	20%	50V
C524	1-130-483-00	MYLAR	0.01uF	5%	50V
C525	1-130-490-11	MYLAR	0.039uF	5%	50V
C526	1-124-903-11	ELECT	1uF	20%	50V
C527	1-161-327-00	CERAMIC	0.0033uF	30%	16V
C528	1-161-494-00	CERAMIC	0.022uF		25V
C529	1-124-903-11	ELECT	1uF	20%	50V
C530	1-161-374-11	CERAMIC	0.0015uF	20%	50V
C531	1-161-494-00	CERAMIC	0.022uF		25V

< CONNECTOR >

Ref. No.	Part No.	Description	Remark
* CN461	1-565-481-11	CONNECTOR, BOARD TO BOARD 5P	(US, Canadian)
* CN461	1-565-482-11	CONNECTOR, BOARD TO BOARD 6P	(UK, E, G, MX, SP)
CN463	1-764-411-11	SOCKET, CONNECTOR 35P	
CN756	1-506-906-11	PIN, CONNECTOR 5P	
* CN757	1-561-650-00	SOCKET, CONNECTOR 5P	

< DIODE >

Ref. No.	Part No.	Description	
D401	8-719-987-63	DIODE	1N4148M
D402	8-719-987-63	DIODE	1N4148M
D403	8-719-987-63	DIODE	1N4148M
D404	8-719-987-63	DIODE	1N4148M
D501	8-719-313-69	LED	SEL3210S-CD (SUPERWOOFER)
D502	8-719-313-69	LED	SEL3210S-CD (LEVEL)
D503	8-719-313-69	LED	SEL3210S-CD (TONE)
D511	8-719-987-63	DIODE	1N4148M
D512	8-719-987-63	DIODE	1N4148M
D513	8-719-987-63	DIODE	1N4148M
D514	8-719-987-63	DIODE	1N4148M
D515	8-719-987-63	DIODE	1N4148M
D516	8-719-987-63	DIODE	1N4148M
D517	8-719-987-63	DIODE	1N4148M

< FLUORESCENT INDICATOR TUBE >

Ref. No.	Part No.	Description
FL401	1-517-275-11	INDICATOR TUBE, FLUORESCENT

< IC >

Ref. No.	Part No.	Description	
IC401	8-759-271-02	IC	uPD78042GF-075-3B9
IC402	8-749-920-83	IC	GP1U52XB
IC501	8-759-000-48	IC	MC14052BCP

Ref. No.	Part No.	Description			Remark
		< COIL >			
L401	1-410-521-11	INDUCTOR	100uH		
		< TRANSISTOR >			
Q401	8-729-119-78	TRANSISTOR	2SC403SP-51		
Q402	8-729-119-78	TRANSISTOR	2SC403SP-51		
Q501	8-729-900-36	TRANSISTOR	DTC124ES		
Q502	8-729-900-36	TRANSISTOR	DTC124ES		
Q503	8-729-900-36	TRANSISTOR	DTC124ES		
		< RESISTOR >			
R402	1-247-807-31	CARBON	100	5%	1/4W
R404	1-249-441-11	CARBON	100K	5%	1/4W
R405	1-247-807-31	CARBON	100	5%	1/4W
R406	1-247-807-31	CARBON	100	5%	1/4W
R407	1-247-807-31	CARBON	100	5%	1/4W
R408	1-249-429-11	CARBON	10K	5%	1/4W
R409	1-249-433-11	CARBON	22K	5%	1/4W
R410	1-247-807-31	CARBON	100	5%	1/4W
R411	1-247-807-31	CARBON	100	5%	1/4W
R412	1-247-807-31	CARBON	100	5%	1/4W
R413	1-249-429-11	CARBON	10K	5%	1/4W
R414	1-249-429-11	CARBON	10K	5%	1/4W
R415	1-249-429-11	CARBON	10K	5%	1/4W
R416	1-249-433-11	CARBON	22K	5%	1/4W (UK, E, G, SP)
R417	1-247-903-00	CARBON	1M	5%	1/4W
R418	1-247-807-31	CARBON	100	5%	1/4W
R419	1-247-807-31	CARBON	100	5%	1/4W
R420	1-247-807-31	CARBON	100	5%	1/4W
R421	1-247-807-31	CARBON	100	5%	1/4W
R422	1-247-807-31	CARBON	100	5%	1/4W
R423	1-249-437-11	CARBON	47K	5%	1/4W
R424	1-249-429-11	CARBON	10K	5%	1/4W
R425	1-249-429-11	CARBON	10K	5%	1/4W
R426	1-249-429-11	CARBON	10K	5%	1/4W
R427	1-249-421-11	CARBON	2.2K	5%	1/4W
R428	1-249-429-11	CARBON	10K	5%	1/4W
R429	1-249-429-11	CARBON	10K	5%	1/4W
R430	1-249-429-11	CARBON	10K	5%	1/4W
R431	1-247-807-31	CARBON	100	5%	1/4W
R432	1-247-807-31	CARBON	100	5%	1/4W
R433	1-247-807-31	CARBON	100	5%	1/4W
R434	1-247-807-31	CARBON	100	5%	1/4W
R435	1-247-807-31	CARBON	100	5%	1/4W
R436	1-247-807-31	CARBON	100	5%	1/4W
R437	1-247-807-31	CARBON	100	5%	1/4W
R438	1-247-807-31	CARBON	100	5%	1/4W
R439	1-247-807-31	CARBON	100	5%	1/4W
R440	1-247-807-31	CARBON	100	5%	1/4W
R441	1-247-807-31	CARBON	100	5%	1/4W
R442	1-247-807-31	CARBON	100	5%	1/4W
R443	1-249-437-11	CARBON	47K	5%	1/4W
R444	1-249-437-11	CARBON	47K	5%	1/4W
R445	1-249-437-11	CARBON	47K	5%	1/4W
R446	1-249-437-11	CARBON	47K	5%	1/4W
R447	1-249-437-11	CARBON	47K	5%	1/4W
R448	1-249-437-11	CARBON	47K	5%	1/4W
R449	1-249-437-11	CARBON	47K	5%	1/4W
R450	1-249-437-11	CARBON	47K	5%	1/4W
R451	1-249-437-11	CARBON	47K	5%	1/4W
R452	1-249-437-11	CARBON	47K	5%	1/4W
R453	1-249-437-11	CARBON	47K	5%	1/4W
R454	1-249-437-11	CARBON	47K	5%	1/4W
R455	1-249-437-11	CARBON	47K	5%	1/4W
R456	1-249-429-11	CARBON	10K	5%	1/4W
R457	1-249-434-11	CARBON	27K	5%	1/4W
R458	1-247-807-31	CARBON	100	5%	1/4W
R459	1-247-807-31	CARBON	100	5%	1/4W
R463	1-249-406-11	CARBON	120	5%	1/4W
R464	1-249-406-11	CARBON	120	5%	1/4W
R465	1-247-811-31	CARBON	150	5%	1/4W
R466	1-249-408-11	CARBON	180	5%	1/4W
R467	1-249-409-11	CARBON	220	5%	1/4W
R468	1-249-410-11	CARBON	270	5%	1/4W
R469	1-249-411-11	CARBON	330	5%	1/4W
R470	1-249-413-11	CARBON	470	5%	1/4W
R471	1-249-414-11	CARBON	560	5%	1/4W
R472	1-249-416-11	CARBON	820	5%	1/4W
R473	1-249-418-11	CARBON	1.2K	5%	1/4W
R474	1-249-421-11	CARBON	2.2K	5%	1/4W
R475	1-249-419-11	CARBON	1.5K	5%	1/4W
R476	1-247-807-31	CARBON	100	5%	1/4W
R477	1-249-406-11	CARBON	120	5%	1/4W
R478	1-249-406-11	CARBON	120	5%	1/4W
R479	1-247-811-31	CARBON	150	5%	1/4W
R480	1-249-408-11	CARBON	180	5%	1/4W
R481	1-249-409-11	CARBON	220	5%	1/4W
R482	1-249-410-11	CARBON	270	5%	1/4W
R483	1-249-411-11	CARBON	330	5%	1/4W
R484	1-249-413-11	CARBON	470	5%	1/4W
R485	1-249-414-11	CARBON	560	5%	1/4W
R486	1-249-416-11	CARBON	820	5%	1/4W
R487	1-249-418-11	CARBON	1.2K	5%	1/4W
R488	1-249-421-11	CARBON	2.2K	5%	1/4W
R489	1-249-424-11	CARBON	3.9K	5%	1/4W
R490	1-249-430-11	CARBON	12K	5%	1/4W

DISPLAY | LOADING MOTOR | MAIN

Ref. No.	Part No.	Description			Remark
R492	1-247-807-31	CARBON	100	5%	1/4W
R493	1-249-406-11	CARBON	120	5%	1/4W
R494	1-249-406-11	CARBON	120	5%	1/4W
R495	1-247-811-31	CARBON	150	5%	1/4W
R496	1-249-408-11	CARBON	180	5%	1/4W
R497	1-249-409-11	CARBON	220	5%	1/4W
R498	1-249-410-11	CARBON	270	5%	1/4W
R499	1-249-411-11	CARBON	330	5%	1/4W
R500	1-249-413-11	CARBON	470	5%	1/4W
R501	1-249-435-11	CARBON	33K	5%	1/4W
R510	1-247-807-31	CARBON	100	5%	1/4W
R511	1-249-415-11	CARBON	680	5%	1/4W
R512	1-249-415-11	CARBON	680	5%	1/4W
R514	1-249-441-11	CARBON	100K	5%	1/4W
R515	1-249-430-11	CARBON	12K	5%	1/4W
R516	1-249-417-11	CARBON	1K	5%	1/4W
R517	1-249-441-11	CARBON	100K	5%	1/4W
R518	1-249-430-11	CARBON	12K	5%	1/4W
R519	1-249-417-11	CARBON	1K	5%	1/4W
R520	1-249-441-11	CARBON	100K	5%	1/4W
R521	1-249-429-11	CARBON	10K	5%	1/4W
R522	1-249-417-11	CARBON	1K	5%	1/4W
R523	1-249-441-11	CARBON	100K	5%	1/4W
R524	1-249-429-11	CARBON	10K	5%	1/4W
R525	1-249-417-11	CARBON	1K	5%	1/4W
R526	1-249-441-11	CARBON	100K	5%	1/4W
R527	1-249-428-11	CARBON	8.2K	5%	1/4W
R528	1-249-418-11	CARBON	1.2K	5%	1/4W
R529	1-249-441-11	CARBON	100K	5%	1/4W
R530	1-249-429-11	CARBON	10K	5%	1/4W
R531	1-249-416-11	CARBON	820	5%	1/4W
R532	1-249-441-11	CARBON	100K	5%	1/4W
R533	1-249-428-11	CARBON	8.2K	5%	1/4W

< SWITCH >

Ref. No.	Part No.	Description	Remark
S464	1-554-303-21	SWITCH, TACTILE (SHIFT)	
S465	1-554-303-21	SWITCH, TACTILE (1)	
S466	1-554-303-21	SWITCH, TACTILE (2)	
S467	1-554-303-21	SWITCH, TACTILE (3)	
S468	1-554-303-21	SWITCH, TACTILE (4)	
S469	1-554-303-21	SWITCH, TACTILE (5)	
S470	1-554-303-21	SWITCH, TACTILE (6)	
S471	1-554-303-21	SWITCH, TACTILE (7)	
S472	1-554-303-21	SWITCH, TACTILE (8)	
S473	1-554-303-21	SWITCH, TACTILE (9)	
S474	1-554-303-21	SWITCH, TACTILE (0)	
S475	1-554-303-21	SWITCH, TACTILE (VIDEO 1/MD)	
S476	1-554-303-21	SWITCH, TACTILE (TAPE)	
S477	1-554-303-21	SWITCH, TACTILE (CD)	
S478	1-554-303-21	SWITCH, TACTILE (TUNER)	
S479	1-554-303-21	SWITCH, TACTILE (PHONO)	
S480	1-554-303-21	SWITCH, TACTILE (DUAL MODE TUNING +)	
S481	1-554-303-21	SWITCH, TACTILE (DUAL MODE TUNING -)	
S482	1-554-303-21	SWITCH, TACTILE (BAND)	
S483	1-554-303-21	SWITCH, TACTILE (TRABLE/CENTER+)	
S484	1-554-303-21	SWITCH, TACTILE (TRABLE/CENTER-)	
S485	1-554-303-21	SWITCH, TACTILE (TONE/LEVEL)	
S486	1-554-303-21	SWITCH, TACTILE (BASS/REAR +)	
S487	1-554-303-21	SWITCH, TACTILE (BASS/REAR -)	
S488	1-554-303-21	SWITCH, TACTILE (SUPER WOOFER)	
S489	1-554-303-21	SWITCH, TACTILE (SUPER WOOFER LEVEL +)	
S490	1-554-303-21	SWITCH, TACTILE (SUPER WOOFER LEVEL -)	
S492	1-554-303-21	SWITCH, TACTILE (SURROUND ON/OFF)	
S493	1-554-303-21	SWITCH, TACTILE (SURROUND MODE SIMULATED)	
S494	1-554-303-21	SWITCH, TACTILE (SURROUND MODE HALL)	
S495	1-554-303-21	SWITCH, TACTILE (SURROUND MODE DOLBY)	
S496	1-554-303-21	SWITCH, TACTILE (PHANTOM)	
S497	1-554-303-21	SWITCH, TACTILE (DOLBY PROLOGIC MODE NORMAL)	
S498	1-554-303-21	SWITCH, TACTILE (DOLBY PROLOGIC MODE WIDE)	
S499	1-554-303-21	SWITCH, TACTILE (3cH)	
S500	1-554-303-21	SWITCH, TACTILE (VIDEO 2)	

< VIBRATOR >

Ref. No.	Part No.	Description	Remark
X401	1-577-101-11	VIBRATOR, CERAMIC (4.19MHz)	

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Ref. No.	Part No.	Description
*	1-639-288-11	LOADING MOTOR BOARD

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< CAPACITOR >

Ref. No.	Part No.	Description			
C705	1-161-375-00	CERAMIC	0.0022uF	20%	50V

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Ref. No.	Part No.	Description
*	A-4371-420-A	MAIN BOARD, COMPLETE (US, Canadian, MX)
*	A-4371-422-A	MAIN BOARD, COMPLETE (E, SP)
*	A-4377-733-A	MAIN BOARD, COMPLETE (UK, G)

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< CAPACITOR >

Ref. No.	Part No.	Description			
C1	1-161-379-00	CERAMIC	0.01uF	20%	25V
C2	1-124-477-11	ELECT	47uF	20%	25V
C3	1-161-379-00	CERAMIC	0.01uF	20%	25V
C4	1-124-907-11	ELECT	10uF	20%	50V
C5	1-161-379-00	CERAMIC	0.01uF	20%	25V
C6	1-161-379-00	CERAMIC	0.01uF	20%	25V
C7	1-124-477-11	ELECT	47uF	20%	25V

MAIN

Ref. No.	Part No.	Description				Remark
C8	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C9	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C10	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C11	1-126-157-11	ELECT	10uF	20%	16V	
C12	1-124-902-00	ELECT	0.47uF	20%	50V	
C13	1-124-903-11	ELECT	1uF	20%	50V	
C14	1-124-903-11	ELECT	1uF	20%	50V	
C15	1-124-907-11	ELECT	10uF	20%	50V	
C16	1-124-907-11	ELECT	10uF	20%	50V	
C17	1-126-157-11	ELECT	10uF	20%	16V	
C18	1-126-157-11	ELECT	10uF	20%	16V	
C19	1-136-160-00	FILM	0.039uF	5%	50V	(US, Canadian, UK, G, MX)
C19	1-136-158-00	FILM	0.027uF	5%	50V	(E, SP)
C20	1-136-160-00	FILM	0.039uF	5%	50V	(US, Canadian, UK, G, MX)
C20	1-136-158-00	FILM	0.027uF	5%	50V	(E, SP)
C21	1-161-046-00	CERAMIC	0.0039uF	10%	25V	
C22	1-161-046-00	CERAMIC	0.0039uF	10%	25V	
C23	1-126-301-11	ELECT	1uF	20%	50V	
C24	1-164-086-11	CERAMIC	0.0012uF	10%	50V	
C25	1-161-047-00	CERAMIC	0.0047uF	10%	50V	
C26	1-126-513-11	ELECT	47uF	20%	6.3V	
C27	1-126-962-11	ELECT	3.3uF	20%	50V	
C28	1-161-494-00	CERAMIC	0.022uF		25V	
C29	1-124-907-11	ELECT	10uF	20%	50V	
C30	1-161-494-00	CERAMIC	0.022uF		25V	
C31	1-101-005-00	CERAMIC	22000PF		50V	
C32	1-162-196-31	CERAMIC	5.6PF	10%	50V	
C33	1-161-494-00	CERAMIC	0.022uF		25V	
C40	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C45	1-162-203-31	CERAMIC	15PF	5%	50V	
C51	1-102-961-00	CERAMIC	27PF	5%	50V	
C52	1-102-961-00	CERAMIC	27PF	5%	50V	
C53	1-124-477-11	ELECT	47uF	20%	25V	
C54	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C55	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C56	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C57	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C58	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C61	1-124-925-11	ELECT	2.2uF	20%	100V	
C62	1-124-463-00	ELECT	0.1uF	20%	50V	
C63	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C64	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C65	1-124-477-11	ELECT	47uF	20%	25V	
C67	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C91	1-162-211-31	CERAMIC	33PF	5%	50V	(UK, G)
C701	1-162-282-31	CERAMIC	100PF	10%	50V	(US, Canadian, E, MX, SP)

Ref. No.	Part No.	Description				Remark
C701	1-162-286-21	CERAMIC	220PF	10%	50V	(UK, G)
C702	1-126-927-11	ELECT	2200uF	20%	10V	
C703	1-126-927-11	ELECT	2200uF	20%	10V	
C704	1-124-927-11	ELECT	4.7uF	20%	100V	
C705	1-162-282-31	CERAMIC	100PF	10%	50V	
C706	1-124-907-11	ELECT	10uF	20%	50V	
C708	1-130-480-00	MYLAR	0.0056uF	5%	50V	
C709	1-130-473-00	MYLAR	0.0015uF	5%	50V	
C710	1-124-903-11	ELECT	1uF	20%	50V	
C711	1-124-477-11	ELECT	47uF	20%	25V	
C712	1-124-604-00	ELECT	330uF	20%	10V	
C713	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C714	1-124-604-00	ELECT	330uF	20%	10V	
C715	1-101-005-00	CERAMIC	22000PF		50V	
C716	1-136-161-00	FILM	0.047uF	5%	50V	
C717	1-126-176-11	ELECT	220uF	20%	10V	
C718	1-124-907-11	ELECT	10uF	20%	50V	
C719	1-124-907-11	ELECT	10uF	20%	50V	
C720	1-124-907-11	ELECT	10uF	20%	50V	
C721	1-124-907-11	ELECT	10uF	20%	50V	
C722	1-126-176-11	ELECT	220uF	20%	10V	
C723	1-124-903-11	ELECT	1uF	20%	50V	
C724	1-136-165-00	FILM	0.1uF	5%	50V	
C725	1-136-165-00	FILM	0.1uF	5%	50V	
C726	1-124-902-00	ELECT	0.47uF	20%	50V	
C727	1-124-927-11	ELECT	4.7uF	20%	100V	
C728	1-124-902-00	ELECT	0.47uF	20%	50V	
C729	1-124-927-11	ELECT	4.7uF	20%	100V	
C730	1-136-167-00	FILM	0.15uF	5%	50V	
C731	1-126-962-11	ELECT	3.3uF	20%	50V	
C732	1-136-167-00	FILM	0.15uF	5%	50V	
C733	1-162-292-31	CERAMIC	680PF	10%	50V	
C734	1-124-907-11	ELECT	10uF	20%	50V	
C737	1-124-907-11	ELECT	10uF	20%	50V	
C738	1-124-902-00	ELECT	0.47uF	20%	50V	
C739	1-124-477-11	ELECT	47uF	20%	25V	
C740	1-124-925-11	ELECT	2.2uF	20%	100V	
C742	1-124-907-11	ELECT	10uF	20%	50V	
C743	1-124-907-11	ELECT	10uF	20%	50V	
C745	1-124-903-11	ELECT	1uF	20%	50V	
C746	1-130-489-00	MYLAR	0.033uF	5%	50V	
C747	1-130-473-00	MYLAR	0.0015uF	5%	50V	
C748	1-130-489-00	MYLAR	0.033uF	5%	50V	
C749	1-126-176-11	ELECT	220uF	20%	10V	
C751	1-162-282-31	CERAMIC	100PF	10%	50V	(US, Canadian, E, MX, SP)
C751	1-162-286-21	CERAMIC	220PF	10%	50V	(UK, G)
C752	1-164-159-11	CERAMIC	0.1uF		50V	
C753	1-162-286-31	CERAMIC	220PF	10%	50V	

MAIN

Ref. No.	Part No.	Description				Remark
C754	1-124-927-11	ELECT	4.7uF	20%	100V	
C755	1-162-282-31	CERAMIC	100PF	10%	50V	
C756	1-124-907-11	ELECT	10uF	20%	50V	
C758	1-130-480-00	MYLAR	0.0056uF	5%	50V	
C759	1-130-473-00	MYLAR	0.0015uF	5%	50V	
C760	1-124-903-11	ELECT	1uF	20%	50V	
C761	1-124-477-11	ELECT	47uF	20%	25V	
C762	1-124-903-11	ELECT	1uF	20%	50V	
C773	1-124-903-11	ELECT	1uF	20%	50V	
C774	1-136-165-00	FILM	0.1uF	5%	50V	
C775	1-136-165-00	FILM	0.1uF	5%	50V	
C776	1-124-902-00	ELECT	0.47uF	20%	50V	
C777	1-124-927-11	ELECT	4.7uF	20%	100V	
C778	1-124-902-00	ELECT	0.47uF	20%	50V	
C779	1-124-927-11	ELECT	4.7uF	20%	100V	
C780	1-136-167-00	FILM	0.15uF	5%	50V	
C781	1-126-962-11	ELECT	3.3uF	20%	50V	
C782	1-136-167-00	FILM	0.15uF	5%	50V	
C786	1-124-443-00	ELECT	100uF	20%	10V	
C787	1-124-443-00	ELECT	100uF	20%	10V	
C788	1-162-286-31	CERAMIC	220PF	10%	50V	
C789	1-164-159-11	CERAMIC	0.1uF		50V	
C790	1-164-159-11	CERAMIC	0.1uF		50V	
C792	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C799	1-124-907-11	ELECT	10uF	20%	50V	
C800	1-124-604-00	ELECT	330uF	20%	10V	
C802	1-124-927-11	ELECT	4.7uF	20%	100V	
C803	1-162-215-31	CERAMIC	47PF	5%	50V	
C804	1-130-493-00	MYLAR	0.068uF	5%	50V	
C805	1-130-484-00	MYLAR	0.012uF	5%	50V	
C806	1-161-044-00	CERAMIC	0.0027uF	10%	25V	
C807	1-130-487-00	MYLAR	0.022uF	5%	50V	
C808	1-124-927-11	ELECT	4.7uF	20%	100V	
C809	1-162-215-31	CERAMIC	47PF	5%	50V	
C811	1-124-907-11	ELECT	10uF	20%	50V	
C813	1-124-907-11	ELECT	10uF	20%	50V	
C814	1-124-907-11	ELECT	10uF	20%	50V	
C816	1-124-907-11	ELECT	10uF	20%	50V	
C817	1-164-159-11	CERAMIC	0.1uF		50V	
C819	1-124-907-11	ELECT	10uF	20%	50V	
C820	1-124-907-11	ELECT	10uF	20%	50V	
C822	1-124-903-11	ELECT	1uF	20%	50V	
C824	1-124-907-11	ELECT	10uF	20%	50V	
C825	1-124-907-11	ELECT	10uF	20%	50V	
C826	1-124-907-11	ELECT	10uF	20%	50V	
C829	1-124-604-00	ELECT	330uF	20%	10V	
C830	1-124-443-00	ELECT	100uF	20%	10V	
C831	1-126-176-11	ELECT	220uF	20%	10V	
C832	1-164-159-11	CERAMIC	0.1uF		50V	

Ref. No.	Part No.	Description				Remark
C833	1-164-159-11	CERAMIC	0.1uF		50V	
C834	1-126-927-11	ELECT	2200uF	20%	10V	
C835	1-126-927-11	ELECT	2200uF	20%	10V	
C838	1-164-159-11	CERAMIC	0.1uF		50V	
C840	1-101-005-00	CERAMIC	22000PF		50V	
C841	1-124-463-00	ELECT	0.1uF	20%	50V	
C842	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C843	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C844	1-124-907-11	ELECT	10uF	20%	50V	
C847	1-124-927-11	ELECT	4.7uF	20%	100V	
C852	1-124-927-11	ELECT	4.7uF	20%	100V	
C853	1-162-215-31	CERAMIC	47PF	5%	50V	
C854	1-130-493-00	MYLAR	0.068uF	5%	50V	
C855	1-130-484-00	MYLAR	0.012uF	5%	50V	
C856	1-161-044-00	CERAMIC	0.0027uF	10%	25V	
C857	1-130-487-00	MYLAR	0.022uF	5%	50V	
C858	1-124-927-11	ELECT	4.7uF	20%	100V	
C859	1-162-215-31	CERAMIC	47PF	5%	50V	
C871	1-136-153-00	FILM	0.01uF	5%	50V	
C872	1-124-903-11	ELECT	1uF	20%	50V	
C875	1-124-907-11	ELECT	10uF	20%	50V	
C888	1-164-159-11	CERAMIC	0.1uF		50V	
C897	1-124-927-11	ELECT	4.7uF	20%	100V	
C899	1-124-604-00	ELECT	330uF	20%	10V	
C901-C904	1-162-286-21	CERAMIC	220PF	10%	50V	(UK,G)
C951-C954	1-162-286-21	CERAMIC	220PF	10%	50V	(UK,G)
		< FILTER >				
CF1	1-567-389-11	FILTER, CERAMIC				
CF2	1-567-389-11	FILTER, CERAMIC				(US,Canadian,E,MX,SP)
CF2	1-760-393-11	FILTER, CERAMIC				(UK,G)
CF3	1-760-393-11	FILTER, CERAMIC				(UK,G)
CF4	1-527-981-00	FILTER, CERAMIC				
CF5	1-577-075-11	OSCILLATOR, CERAMIC				
CF6	1-760-220-11	FILTER, CERAMIC				
		< CONNECTOR >				
* CN701	1-569-624-11	SOCKET, CONNECTOR 17P				
* CN702	1-568-834-11	SOCKET, CONNECTOR 15P				
* CN703	1-568-836-11	SOCKET, CONNECTOR 17P				
* CN704	1-691-958-11	SOCKET, CONNECTOR 35P				
* CN705	1-568-834-11	SOCKET, CONNECTOR 15P				
* CN707	1-568-824-11	SOCKET, CONNECTOR 5P				
CN712	1-506-469-11	PIN, CONNECTOR 4P				
		< DIODE >				
D1	8-719-987-63	DIODE 1N4148M				

Ref. No.	Part No.	Description	Remark
D703	8-719-933-36	DIODE HZS6B1L	
D705	8-719-987-63	DIODE 1N4148M	
D706	8-719-015-51	DIODE UZP-15BB-TP	
D708	8-719-015-51	DIODE UZP-15BB-TP	
D710	8-719-987-63	DIODE 1N4148M	
D711	8-719-987-63	DIODE 1N4148M	
		< FRONTEND >	
FE1	1-465-673-11	FRONT END (2 BAND)	(US, Canadian, E, MX, SP)
FE1	1-693-217-11	FRONT END (4 BAND)	(UK, G)
FE2	1-239-634-21	ENCAPSULATED COMPONENT, AM. RF	
		< IC >	
IC1	8-759-176-03	IC LA1835	
IC51	8-759-175-87	IC LC7218-ST	
IC701	8-759-634-50	IC M5218AL	
IC702	8-759-805-14	IC LC7822	
IC703	8-759-248-74	IC LA2785	
IC704	8-759-248-75	IC LV1010	
IC705	8-759-072-32	IC TC9184P	
IC706	8-759-634-50	IC M5218AL	
IC707	8-759-634-50	IC M5218AL	
IC708	8-759-248-76	IC LC7824	
IC712	8-759-634-50	IC M5218AL	
IC713	8-759-634-50	IC M5218AL	
IC714	8-759-820-13	IC L78MR06	
		< IFT >	
IFT1	1-404-713-11	TRANSFORMER, IF	
		< JACK >	
J701	1-580-905-11	JACK, PIN 4P (PHONO/VIDEO 1/MD AUDIO OUT)	
J702	1-580-905-11	JACK, PIN 4P (VIDEO 1, 2 IN)	
J704	1-764-406-11	JACK BLOCK, PIN 3P (OUTPUT FRONT/SUPER WOOFER)	
J705	1-764-405-11	JACK BLOCK, PIN 2P (OUTPUT CENTER/REAR)	
		< COIL >	
L1	1-410-067-21	INDUCTOR 4.7mH	
L11-12	1-414-142-11	INDUCTOR 1uH	(UK, G)
L701	1-410-521-11	INDUCTOR 100uH	
L702	1-410-521-11	INDUCTOR 100uH	
		< FILTER >	
LPF1	1-239-597-11	FILTER, LOW PASS	
LPF2	1-239-597-11	FILTER, LOW PASS	

Ref. No.	Part No.	Description	Remark
		< TRANSISTOR >	
Q1	8-729-230-XX	TRANSISTOR 2SC2669-OY-TPE4	
Q2	8-729-230-XX	TRANSISTOR 2SC2669-OY-TPE4	(UK, G)
Q55	8-729-900-63	TRANSISTOR DTA124ES	
Q61	8-729-202-67	TRANSISTOR 2SK246-GR3	
Q62	8-729-201-84	TRANSISTOR 2SC3112-B	
Q71	8-729-900-36	TRANSISTOR DTC124ES	
Q702	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q703	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q704	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q705	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q706	8-729-900-63	TRANSISTOR DTA124ES	
Q707	8-729-900-63	TRANSISTOR DTA124ES	
Q708	8-729-900-63	TRANSISTOR DTA124ES	
Q709	8-729-900-63	TRANSISTOR DTA124ES	
Q710	8-729-209-15	TRANSISTOR 2SD2012	
Q752	8-729-141-30	TRANSISTOR 2SC3623A-LK	
		< RESISTOR >	
R1	1-249-411-11	CARBON 330 5% 1/4W	
R2	1-249-411-11	CARBON 330 5% 1/4W	
R3	1-247-811-31	CARBON 150 5% 1/4W	
R5	1-247-891-00	CARBON 330K 5% 1/4W	
R6	1-249-411-11	CARBON 330 5% 1/4W	
R7	1-247-891-00	CARBON 330K 5% 1/4W	(UK, G)
R8	1-249-411-11	CARBON 330 5% 1/4W	(UK, G)
R10	1-249-437-11	CARBON 47K 5% 1/4W	
R12	1-249-429-11	CARBON 10K 5% 1/4W	
R13	1-249-442-11	CARBON 510 5% 1/4W	
⚠R14	1-249-401-11	CARBON 47 5% 1/4W	F
R16	1-249-429-11	CARBON 10K 5% 1/4W	
R17	1-247-842-11	CARBON 3K 5% 1/4W	
R18	1-249-429-11	CARBON 10K 5% 1/4W	
R19	1-249-441-11	CARBON 100K 5% 1/4W	
R21	1-249-441-11	CARBON 100K 5% 1/4W	
R22	1-249-437-11	CARBON 47K 5% 1/4W	
R23	1-249-399-11	CARBON 33 5% 1/4W	
R35	1-249-418-11	CARBON 1.2K 5% 1/4W	
R36	1-249-418-11	CARBON 1.2K 5% 1/4W	
⚠R50	1-249-401-11	CARBON 47 5% 1/4W	F
R51	1-249-417-11	CARBON 1K 5% 1/4W	
R52	1-249-417-11	CARBON 1K 5% 1/4W	
R53	1-249-417-11	CARBON 1K 5% 1/4W	
R54	1-249-417-11	CARBON 1K 5% 1/4W	
R56	1-249-425-11	CARBON 4.7K 5% 1/4W	
R57	1-249-417-11	CARBON 1K 5% 1/4W	
R58	1-249-417-11	CARBON 1K 5% 1/4W	
⚠R60	1-249-401-11	CARBON 47 5% 1/4W	F

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

MAIN

Ref. No.	Part No.	Description	Remark
R61	1-249-423-11	CARBON 3.3K 5% 1/4W	
R62	1-249-425-11	CARBON 4.7K 5% 1/4W	
R63	1-249-414-11	CARBON 560 5% 1/4W	
R64	1-249-417-11	CARBON 1K 5% 1/4W	
R65	1-249-410-11	CARBON 270 5% 1/4W	
R66	1-249-421-11	CARBON 2.2K 5% 1/4W	(US, Canadina, MX)
R67	1-249-425-11	CARBON 4.7K 5% 1/4W	
R68	1-249-425-11	CARBON 4.7K 5% 1/4W	
R69	1-247-807-31	CARBON 100 5% 1/4W	
R70	1-249-429-11	CARBON 10K 5% 1/4W	
R71	1-249-433-11	CARBON 22K 5% 1/4W	
R700	1-249-433-11	CARBON 22K 5% 1/4W	
R701	1-249-417-11	CARBON 1K 5% 1/4W	
R702	1-249-417-11	CARBON 1K 5% 1/4W	
R703	1-249-417-11	CARBON 1K 5% 1/4W	
R704	1-249-411-11	CARBON 330 5% 1/4W	(US, Canadian, E, MX, SP)
R704	1-249-417-11	CARBON 1K 5% 1/4W	(UK, G)
R705	1-249-437-11	CARBON 47K 5% 1/4W	
R706	1-249-415-11	CARBON 680 5% 1/4W	
R707	1-247-897-11	CARBON 560K 5% 1/4W	
R708	1-249-437-11	CARBON 47K 5% 1/4W	
R709	1-249-441-11	CARBON 100K 5% 1/4W	
R710	1-249-409-11	CARBON 220 5% 1/4W	
R711	1-249-417-11	CARBON 1K 5% 1/4W	
R712	1-249-411-11	CARBON 330 5% 1/4W	
R713	1-249-425-11	CARBON 4.7K 5% 1/4W	
R716	1-249-441-11	CARBON 100K 5% 1/4W	
R717	1-247-903-00	CARBON 1M 5% 1/4W	
R720	1-247-895-00	CARBON 470K 5% 1/4W	
R721	1-249-440-11	CARBON 82K 5% 1/4W	
R722	1-249-425-11	CARBON 4.7K 5% 1/4W	
R723	1-249-436-11	CARBON 39K 5% 1/4W	
R724	1-247-897-11	CARBON 560K 5% 1/4W	
R725	1-249-434-11	CARBON 27K 5% 1/4W	
R726	1-249-426-11	CARBON 5.6K 5% 1/4W	
R727	1-249-418-11	CARBON 1.2K 5% 1/4W	
R728	1-249-417-11	CARBON 1K 5% 1/4W	
R729	1-249-419-11	CARBON 1.5K 5% 1/4W	(US, Canadian, E, MX, SP)
R729	1-249-423-11	CARBON 3.3K 5% 1/4W	(UK, G)
R730	1-249-417-11	CARBON 1K 5% 1/4W	
R731	1-249-417-11	CARBON 1K 5% 1/4W	
R732	1-249-441-11	CARBON 100K 5% 1/4W	
R733	1-247-885-00	CARBON 180K 5% 1/4W	
R734	1-249-417-11	CARBON 1K 5% 1/4W	
R736	1-249-417-11	CARBON 1K 5% 1/4W	
R737	1-249-417-11	CARBON 1K 5% 1/4W	

Ref. No.	Part No.	Description	Remark
R738	1-249-441-11	CARBON 100K 5% 1/4W	
R739	1-249-441-11	CARBON 100K 5% 1/4W	
R740	1-249-441-11	CARBON 100K 5% 1/4W	
R741	1-247-903-00	CARBON 1M 5% 1/4W	
R742	1-249-429-11	CARBON 10K 5% 1/4W	
R743	1-249-437-11	CARBON 47K 5% 1/4W	
R744	1-249-437-11	CARBON 47K 5% 1/4W	
R745	1-249-437-11	CARBON 47K 5% 1/4W	
R746	1-249-437-11	CARBON 47K 5% 1/4W	
R748	1-249-417-11	CARBON 1K 5% 1/4W	
R749	1-249-425-11	CARBON 4.7K 5% 1/4W	
R750	1-249-433-11	CARBON 22K 5% 1/4W	
R751	1-249-417-11	CARBON 1K 5% 1/4W	
R752	1-249-417-11	CARBON 1K 5% 1/4W	
R753	1-249-417-11	CARBON 1K 5% 1/4W	
R754	1-249-411-11	CARBON 330 5% 1/4W	(US, Canadian, E, MX, SP)
R754	1-249-417-11	CARBON 1K 5% 1/4W	(UK, G)
R755	1-249-437-11	CARBON 47K 5% 1/4W	
R756	1-249-415-11	CARBON 680 5% 1/4W	
R757	1-247-897-11	CARBON 560K 5% 1/4W	
R758	1-249-437-11	CARBON 47K 5% 1/4W	
R759	1-249-441-11	CARBON 100K 5% 1/4W	
R760	1-249-409-11	CARBON 220 5% 1/4W	
R761	1-247-807-31	CARBON 100 5% 1/4W	
R762	1-247-807-31	CARBON 100 5% 1/4W	
R763	1-249-441-11	CARBON 100K 5% 1/4W	
R770	1-247-895-00	CARBON 470K 5% 1/4W	
R771	1-249-440-11	CARBON 82K 5% 1/4W	
R772	1-249-425-11	CARBON 4.7K 5% 1/4W	
R773	1-249-436-11	CARBON 39K 5% 1/4W	
R774	1-247-897-11	CARBON 560K 5% 1/4W	
R775	1-249-434-11	CARBON 27K 5% 1/4W	
R776	1-249-426-11	CARBON 5.6K 5% 1/4W	
R777	1-249-418-11	CARBON 1.2K 5% 1/4W	
R778	1-249-417-11	CARBON 1K 5% 1/4W	
R779	1-249-419-11	CARBON 1.5K 5% 1/4W	(US, Canadian, E, MX, SP)
R779	1-249-423-11	CARBON 3.3K 5% 1/4W	(UK, G)
R780	1-249-417-11	CARBON 1K 5% 1/4W	
R781	1-249-417-11	CARBON 1K 5% 1/4W	
R782	1-249-441-11	CARBON 100K 5% 1/4W	
R790	1-249-441-11	CARBON 100K 5% 1/4W	
R794	1-249-426-11	CARBON 5.6K 5% 1/4W	
R795	1-249-438-11	CARBON 56K 5% 1/4W	
R796	1-249-417-11	CARBON 1K 5% 1/4W	
R797	1-249-441-11	CARBON 100K 5% 1/4W	
R798	1-249-417-11	CARBON 1K 5% 1/4W	
R799	1-249-425-11	CARBON 4.7K 5% 1/4W	

Ref. No.	Part No.	Description			Remark
R800	1-249-435-11	CARBON	33K	5%	1/4W
R801	1-249-441-11	CARBON	100K	5%	1/4W
R802	1-249-441-11	CARBON	100K	5%	1/4W
R805	1-249-417-11	CARBON	1K	5%	1/4W
R808	1-249-408-11	CARBON	180	5%	1/4W
R809	1-249-426-11	CARBON	5.6K	5%	1/4W
R812	1-249-437-11	CARBON	47K	5%	1/4W
R813	1-249-437-11	CARBON	47K	5%	1/4W
R814	1-249-437-11	CARBON	47K	5%	1/4W
R815	1-249-437-11	CARBON	47K	5%	1/4W
R824	1-249-418-11	CARBON	1.2K	5%	1/4W
R827	1-249-417-11	CARBON	1K	5%	1/4W
R828	1-249-424-11	CARBON	3.9K	5%	1/4W
R829	1-249-420-11	CARBON	1.8K	5%	1/4W
R830	1-249-423-11	CARBON	3.3K	5%	1/4W
R831	1-249-423-11	CARBON	3.3K	5%	1/4W
R832	1-249-429-11	CARBON	10K	5%	1/4W
R833	1-249-417-11	CARBON	1K	5%	1/4W
R834	1-249-441-11	CARBON	100K	5%	1/4W
R835	1-249-381-11	CARBON	1	5%	1/4W
R836	1-249-381-11	CARBON	1	5%	1/4W
R839	1-249-426-11	CARBON	5.6K	5%	1/4W
R840	1-249-421-11	CARBON	2.2K	5%	1/4W
R841	1-249-424-11	CARBON	3.9K	5%	1/4W
R842	1-249-417-11	CARBON	1K	5%	1/4W
R843	1-249-425-11	CARBON	4.7K	5%	1/4W
R844	1-249-409-11	CARBON	220	5%	1/4W
R847	1-249-430-11	CARBON	12K	5%	1/4W
R848	1-249-420-11	CARBON	1.8K	5%	1/4W
R849	1-249-418-11	CARBON	1.2K	5%	1/4W
R852	1-249-441-11	CARBON	100K	5%	1/4W
R859	1-249-426-11	CARBON	5.6K	5%	1/4W
R862	1-249-393-11	CARBON	10	5%	1/4W
R863	1-249-393-11	CARBON	10	5%	1/4W
R864	1-249-417-11	CARBON	1K	5%	1/4W
R865	1-249-417-11	CARBON	1K	5%	1/4W
R866	1-249-417-11	CARBON	1K	5%	1/4W
R871	1-249-393-11	CARBON	10	5%	1/4W
R872	1-249-393-11	CARBON	10	5%	1/4W
R873	1-247-807-31	CARBON	100	5%	1/4W
R874	1-247-807-31	CARBON	100	5%	1/4W
⚠R878	1-249-384-81	CARBON	1.8	5%	1/4W F
⚠R879	1-249-384-81	CARBON	1.8	5%	1/4W F
R884	1-249-441-11	CARBON	100K	5%	1/4W
R889	1-249-426-11	CARBON	5.6K	5%	1/4W
R890	1-249-393-11	CARBON	10	5%	1/4W
R894	1-247-807-31	CARBON	100	5%	1/4W
R895	1-249-431-11	CARBON	15K	5%	1/4W
R896	1-247-807-31	CARBON	100	5%	1/4W

Ref. No.	Part No.	Description			Remark
R897	1-249-430-11	CARBON	12K	5%	1/4W
R898	1-249-420-11	CARBON	1.8K	5%	1/4W
R899	1-249-418-11	CARBON	1.2K	5%	1/4W
R904	1-249-417-11	CARBON	1K	5%	1/4W (UK, G)
R954	1-249-417-11	CARBON	1K	5%	1/4W (UK, G)

< VARIABLE RESISTOR >

Ref. No.	Part No.	Description
RV1	1-238-601-11	RES, ADJ, CARBON 22K (AM TUNED)
RV2	1-238-601-11	RES, ADJ, CARBON 22K (FM TUNED)

< TERMINAL >

Ref. No.	Part No.	Description	Remark
TM1	1-537-264-11	TERMINAL BOARD (ANTENNA)	(US, Canadina, E, MX, SP)
TM1	1-537-288-11	TERMINAL BOARD (ANTENNA) (PAL)	(UK, G)

< VIBRATOR >

Ref. No.	Part No.	Description
X51	1-577-126-21	VIBRATOR, CRYSTAL (7.2MHz)
X701	1-579-125-11	VIBRATOR, CERAMIC (8MHz)

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* A-2006-623-A MD-A BOARD, COMPLETE

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< CAPACITOR >

Ref. No.	Part No.	Description			Remark
C11	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C12	1-136-157-00	FILM	0.022uF	5%	50V
C13	1-124-234-00	ELECT	22uF	20%	16V
C18	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C21	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C22	1-136-157-00	FILM	0.022uF	5%	50V
C23	1-124-234-00	ELECT	22uF	20%	16V
C28	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C31	1-124-234-00	ELECT	22uF	20%	16V
C32	1-124-234-00	ELECT	22uF	20%	16V
C72	1-124-499-11	ELECT, NONPOLAR	1uF	20%	50V

< CONNECTOR >

Ref. No.	Part No.	Description
* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD
* CNJ72	1-580-411-11	SOCKET, CONNECTOR 4P
* CNP32	1-580-772-11	PIN, CONNECTOR (PC BOARD) 4P
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P

< JUMPER RESISTOR >

Ref. No.	Part No.	Description			Remark
JW1	1-216-295-00	METAL CHIP	0	5%	1/10W
JW51	1-216-296-91	METAL GLAZE	0	5%	1/8W
JW52	1-216-296-91	METAL GLAZE	0	5%	1/8W
JW53	1-216-296-91	METAL GLAZE	0	5%	1/8W
JW54	1-216-296-91	METAL GLAZE	0	5%	1/8W

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark
		< IC >			
IC31	8-759-106-02	IC uPC4570G2			
		< TRANSISTOR >			
Q71	8-729-216-22	TRANSISTOR 2SA1162-G			
		< RESISTOR >			
R11	1-216-099-00	METAL CHIP	120K	5%	1/10W
R13	1-216-100-00	METAL GLAZE	130K	5%	1/10W
R14	1-216-068-00	METAL CHIP	6.2K	5%	1/10W
R21	1-216-099-00	METAL CHIP	120K	5%	1/10W
R23	1-216-100-00	METAL GLAZE	130K	5%	1/10W
R24	1-216-068-00	METAL CHIP	6.2K	5%	1/10W
R31	1-216-033-00	METAL CHIP	220	5%	1/10W
R32	1-216-033-00	METAL CHIP	220	5%	1/10W
R71	1-216-082-00	METAL GLAZE	24K	5%	1/10W
R72	1-216-081-00	METAL CHIP	22K	5%	1/10W
R73	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R74	1-216-089-91	METAL GLAZE	47K	5%	1/10W
		< VARIABLE RESISTOR >			
RV11	1-241-761-11	RES, ADJ, CARBON 1K (PB LEVEL L-CH)			
RV21	1-241-761-11	RES, ADJ, CARBON 1K (PB LEVEL R-CH)			
RV71	1-241-630-11	RES, ADJ, CARBON 10K (TAPE SPEED)			
RV72	1-241-630-11	RES, ADJ, CARBON 10K (TAPE SPEED)			

****

* A-2007-134-A MD-B BOARD, COMPLETE

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Ref. No.	Part No.	Description			Remark
		< CAPACITOR >			
C11	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C12	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C13	1-136-153-00	FILM	0.01uF	5%	50V
C14	1-126-177-11	ELECT	100uF	20%	10V
C15	1-124-234-00	ELECT	22uF	20%	16V
C16	1-136-273-91	FILM	75PF	5%	630V
C17	1-164-080-11	CERAMIC	390PF	10%	50V
C18	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C21	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C22	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C23	1-136-153-00	FILM	0.01uF	5%	50V
C24	1-126-177-11	ELECT	100uF	20%	10V
C25	1-124-234-00	ELECT	22uF	20%	16V
C26	1-136-273-91	FILM	75PF	5%	630V
C27	1-164-080-11	CERAMIC	390PF	10%	50V
C28	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C31	1-124-234-00	ELECT	22uF	20%	16V
C32	1-124-234-00	ELECT	22uF	20%	16V
C33	1-124-234-00	ELECT	22uF	20%	16V
C51	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C52	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C53	1-163-022-00	CERAMIC CHIP	0.012uF	10%	50V
C54	1-136-559-11	FILM	0.0047uF	5%	630V
C56	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C57	1-164-346-11	CERAMIC CHIP	1uF		16V
C58	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V
C72	1-124-499-11	ELECT, NONPOLAR	1uF	20%	50V
		< CONNECTOR >			
* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD			
* CNJ33	1-580-782-11	CONNECTOR, BOARD TO BOARD			
* CNJ72	1-580-411-11	SOCKET, CONNECTOR 4P			
		< CONNECTOR >			
* CNP32	1-580-781-11	PIN, CONNECTOR (PC BOARD) 7P			
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P			
		< IC >			
IC31	8-759-249-21	IC uPC1330GR-T1			
IC32	8-759-106-02	IC uPC4570G2			
		< JUMPER RESISTOR >			
JW1	1-216-295-00	METAL GLAZE	0	5%	1/10W
JW2	1-216-295-00	METAL GLAZE	0	5%	1/10W
JW11-27	1-216-296-91	METAL GLAZE	0	5%	1/8W
		< COIL >			
L11	1-410-780-11	INDUCTOR	27mH		
L21	1-410-780-11	INDUCTOR	27mH		
		< TRANSISTOR >			
Q51	8-729-011-92	TRANSISTOR 2SC2001TP-K1K2			
Q52	8-729-011-92	TRANSISTOR 2SC2001TP-K1K2			
Q53	8-729-111-29	TRANSISTOR 2SD1616A-K			
Q71	8-729-216-22	TRANSISTOR 2SA1162-G			
		< RESISTOR >			
R11	1-216-099-00	METAL CHIP	120K	5%	1/10W
R12	1-216-033-00	METAL CHIP	220	5%	1/10W
R13	1-216-081-00	METAL CHIP	22K	5%	1/10W
R14	1-216-075-00	METAL CHIP	12K	5%	1/10W
R15	1-216-107-00	METAL CHIP	270K	5%	1/10W
⚠R16	1-249-430-11	CARBON	12K	5%	1/4W F

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
R21	1-216-099-00	METAL CHIP 120K 5% 1/10W	
R22	1-216-033-00	METAL CHIP 220 5% 1/10W	
R23	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R24	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R25	1-216-107-00	METAL CHIP 270K 5% 1/10W	
⚠R26	1-249-430-11	CARBON 12K 5% 1/4W F	
R31	1-216-033-00	METAL CHIP 220 5% 1/10W	
R32	1-216-033-00	METAL CHIP 220 5% 1/10W	
⚠R41	1-249-393-11	CARBON 10 5% 1/4W F	
⚠R42	1-249-393-11	CARBON 10 5% 1/4W F	
R51	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R52	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R54	1-216-309-00	METAL CHIP 5.6 5% 1/10W	
R55	1-216-309-00	METAL CHIP 5.6 5% 1/10W	
R56	1-216-298-00	METAL CHIP 2.2 5% 1/10W	
R71	1-216-082-00	METAL GLAZE 24K 5% 1/10W	
R72	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R73	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R74	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
		< VARIABLE RESISTOR >	
RV11	1-241-761-11	RES, ADJ, CARBON 1K (PB LEVEL L-CH)	
RV12	1-238-551-11	RES, ADJ, CARBON 220K (REC BIAS L-CH)	
RV21	1-241-761-11	RES, ADJ, CARBON 1K (PB LEVEL R-CH)	
RV22	1-238-551-11	RES, ADJ, CARBON 220K (REC BIAS R-CH)	
RV71	1-241-630-11	RES, ADJ, CARBON 10K (TAPE SPEED)	
RV72	1-241-630-11	RES, ADJ, CARBON 10K (TAPE SPEED)	
		< TRANSFORMER >	
T51	1-406-419-11	COIL, BIAS OSCILLATION	

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*	1-638-731-11	OPNE/UP SW BOARD	
		****************	
		< CONNECTOR >	
* CN705	1-566-214-11	PIN, CONNECTOR (PC BOARD) 2P	
		< SWITCH >	
S702	1-571-300-21	SWITCH, ROTARY (OPEN/UP)	

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*	1-638-020-11	SW-A BOARD	
		**********	
		< CONNECTOR >	
* CNP81	1-568-850-11	SOCKET, CONNECTOR 7P	
		< IC >	
IC81	8-749-924-10	IC PHONT REFLECTOR NJL5165K-B(H1)	
		< RESISTOR >	
R84	1-249-417-11	CARBON 1K 5% 1/4W	
R85	1-249-408-11	CARBON 180 5% 1/4W	
		< SWITCH >	
S81	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP DET)	
S82	1-571-281-21	SWITCH, LEAF (CrO_2 DET)	
S86	1-571-281-21	SWITCH, LEAF (HALF)	

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*	1-638-020-11	SW-B BOARD	
		*********	
		< CONNECTOR >	
* CNP81	1-568-850-11	SOCKET, CONNECTOR 7P	
		< IC >	
IC81	8-749-924-10	IC PHONT REFLECTOR NJL5165K-B(H1)	
		< RESISTOR >	
R81	1-249-414-11	CARBON 560 5% 1/4W	
R82	1-247-818-91	CARBON 300 5% 1/4W	
R83	1-247-834-11	CARBON 1.3K 5% 1/4W	
R84	1-249-417-11	CARBON 1K 5% 1/4W	
R85	1-249-408-11	CARBON 180 5% 1/4W	
		< SWITCH >	
S81	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP DET)	
S82	1-571-281-21	SWITCH, LEAF (CrO_2 DET)	
S83	1-571-281-21	SWITCH, LEAF (METAL)	
S84	1-571-281-21	SWITCH, LEAF (ERASE PROOF-A)	
S85	1-571-281-21	SWITCH, LEAF (ERASE PROOF-B)	
S86	1-571-281-21	SWITCH, LEAF (HALF)	

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*	1-638-729-11	TABLE MOTOR BOARD	
		*****************	
		< CAPACITOR >	
C704	1-161-375-00	CERAMIC 0.0022uF 20% 50V	
		< CONNECTOR >	
* CN707	1-573-044-11	SOCKET, CONNECTOR 5P	

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TABLE MOTOR | TC MAIN

Ref. No.	Part No.	Description			Remark
		< DIODE >			
D701	8-719-970-19	DIODE GP-1A521			
		< RESISTOR >			
R701	1-249-416-11	CARBON	820	5%	1/4W
**					
*	A-4371-417-A	TC MAIN BOARD, COMPLETE (US, Canadian, E, MX, SP)			
*	A-4377-732-A	TC MAIN BOARD, COMPLETE (UK, G)			
		**********************			
	7-685-646-79	SCREW +BVTP 3×8 TYPE2 N-S			
		< CAPACITOR >			
C201	1-126-163-11	ELECT	4.7uF	20%	50V
C202	1-136-157-00	FILM	0.022uF	5%	50V
C203	1-162-294-31	CERAMIC	0.001uF	10%	50V
C204	1-124-907-11	ELECT	10uF	20%	50V
C205	1-137-366-11	FILM	0.0022uF	5%	50V
C206	1-137-366-11	FILM	0.0022uF	5%	50V
C207	1-136-174-00	FILM	0.56uF	5%	50V
C208	1-136-171-00	FILM	0.33uF	5%	50V
C209	1-124-907-11	ELECT	10uF	20%	50V
C210	1-126-962-11	ELECT	3.3uF	20%	50V
C211	1-126-443-00	ELECT	100uF	20%	10V
C212	1-124-126-00	ELECT	47uF	20%	10V
C213	1-124-907-11	ELECT	10uF	20%	50V
C214	1-124-902-00	ELECT	0.47uF	20%	50V
C215	1-124-927-11	ELECT	4.7uF	20%	100V
C216	1-126-803-11	ELECT	47F	20%	10V
C217	1-126-803-11	ELECT	47F	20%	10V
C218	1-126-803-11	ELECT	47F	20%	10V
C239	1-124-907-11	ELECT	10uF	20%	50V
C241	1-124-126-00	ELECT	47uF	20%	10V
C242	1-164-159-11	CERAMIC	0.1uF		50V
C243	1-162-282-31	CERAMIC	100PF	10%	50V
C244	1-162-282-31	CERAMIC	100PF	10%	50V
C245	1-126-962-11	ELECT	3.3uF	20%	50V
C246	1-124-907-11	ELECT	10uF	20%	50V
C247	1-124-907-11	ELECT	10uF	20%	50V
C248	1-136-165-00	FILM	0.1uF	5%	50V
C249	1-136-165-00	FILM	0.1uF	5%	50V
C250	1-162-288-31	CERAMIC	330PF	10%	50V
C251	1-162-288-31	CERAMIC	330PF	10%	50V
C252	1-124-479-11	ELECT	330uF	20%	25V
C253	1-124-585-11	ELECT	3300uF	20%	10V
C254	1-124-585-11	ELECT	3300uF	20%	10V
C255	1-124-473-11	ELECT	1000uF	20%	10V

Ref. No.	Part No.	Description			Remark
C256	1-124-472-11	ELECT	470uF	20%	10V
C257	1-124-472-11	ELECT	470uF	20%	10V
C258	1-162-306-11	CERAMIC	0.01uF	20%	16V
C259	1-162-306-11	CERAMIC	0.01uF	20%	16V
C260	1-124-479-11	ELECT	330uF	20%	25V
C261	1-164-159-11	CERAMIC	0.1uF		50V
C262	1-124-122-11	ELECT	100uF	20%	50V
C263	1-124-916-11	ELECT	22uF	20%	63V
C264	1-124-916-11	ELECT	22uF	20%	63V
C265	1-126-927-11	ELECT	2200uF	20%	10V
C266	1-164-159-11	CERAMIC	0.1uF		50V
C267	1-164-159-11	CERAMIC	0.1uF		50V
C301	1-126-163-11	ELECT	4.7uF	20%	50V
C302	1-136-157-00	FILM	0.022uF	5%	50V
C303	1-162-294-31	CERAMIC	0.001uF	10%	50V
C304	1-124-907-11	ELECT	10uF	20%	50V
C305	1-137-366-11	FILM	0.0022uF	5%	50V
C306	1-137-366-11	FILM	0.0022uF	5%	50V
C307	1-136-174-00	FILM	0.56uF	5%	50V
C308	1-136-171-00	FILM	0.33uF	5%	50V
C309	1-124-907-11	ELECT	10uF	20%	50V
C310	1-126-962-11	ELECT	3.3uF	20%	50V
C311	1-126-443-00	ELECT	100uF	20%	10V
C313	1-124-907-11	ELECT	10uF	20%	50V
C314	1-124-902-00	ELECT	0.47uF	20%	50V
C315	1-124-927-11	ELECT	4.7uF	20%	100V
C316	1-126-803-11	ELECT	47uF	20%	10V
C317	1-126-803-11	ELECT	47uF	20%	10V
C318	1-126-803-11	ELECT	47uF	20%	10V
		< CONNECTOR >			
CN201	1-568-860-11	SOCKET, CONNECTOR 17P			
* CN202	1-568-824-11	SOCKET, CONNECTOR 5P			
* CN204	1-568-845-11	SOCKET, CONNECTOR 31P			
* CN205	1-564-517-11	PLUG, CONNECTOR 2P			
* CN206	1-568-826-11	SOCKET, CONNECTOR 7P			
* CN207	1-568-826-11	SOCKET, CONNECTOR 7P			
CN208	1-580-783-11	CONNECTOR, BOARD TO BOARD			
CN209	1-580-783-11	CONNECTOR, BOARD TO BOARD			
CN210	1-580-783-11	CONNECTOR, BOARD TO BOARD			
		< DIODE >			
D201	8-719-987-63	DIODE 1N4148M			
D202	8-719-987-63	DIODE 1N4148M			
D203	8-719-987-63	DIODE 1N4148M			
D204	8-719-987-63	DIODE 1N4148M			
D205	8-719-987-63	DIODE 1N4148M			
D206	8-719-987-63	DIODE 1N4148M			
D207	8-719-987-63	DIODE 1N4148M			

Ref. No.	Part No.	Description	Remark
D208	8-719-987-63	DIODE 1N4148M	
D209	8-719-987-63	DIODE 1N4148M	
D210	8-719-987-63	DIODE 1N4148M	
D212	8-719-200-82	DIODE 11ES2	
D213	8-719-200-82	DIODE 11ES2	
D301	8-719-987-63	DIODE 1N4148M	
		< IC >	
IC201	8-752-059-55	IC CXA1331S	
IC202	8-759-140-53	IC uPD4053BC	
IC203	8-752-055-61	IC CXA1578P	
IC204	8-759-145-58	IC uPC4558C	
IC205	8-759-062-38	IC M50941-712SP	
IC206	8-759-520-90	IC PST572E	
IC207	8-759-207-05	IC TA7272P	
		< COIL >	
L201	1-408-080-00	INDUCTOR 100uH	
L202	1-408-080-00	INDUCTOR 100uH	
		< LOW PASS FILTER >	
LP201	1-236-087-11	FILTER, LOW PASS	
LP301	1-236-087-11	FILTER, LOW PASS	
		< TRANSISTOR >	
Q201	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q202	8-729-900-80	TRANSISTOR DTC114ES	
Q301	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q302	8-729-900-80	TRANSISTOR DTC114ES	
Q313	8-729-900-65	TRANSISTOR DTA144ES	
Q314	8-729-900-65	TRANSISTOR DTA144ES	
Q315	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q316	8-729-900-65	TRANSISTOR DTA144ES	
Q317	8-729-144-44	TRANSISTOR 2SD1513-K	
Q318	8-729-144-44	TRANSISTOR 2SD1513-K	
Q319	8-729-900-80	TRANSISTOR DTC114ES	
Q320	8-729-900-36	TRANSISTOR DTC124ES	
Q321	8-729-900-61	TRANSISTOR DTA114ES	
Q322	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q323	8-729-900-65	TRANSISTOR DTA144ES	
Q324	8-729-900-65	TRANSISTOR DTA144ES	
Q325	8-729-900-80	TRANSISTOR DTC114ES	
Q326	8-729-900-80	TRANSISTOR DTC114ES	
Q327	8-729-900-80	TRANSISTOR DTC114ES	
		< RESISTOR >	
R201	1-249-429-11	CARBON 10K 5% 1/4W	
R203	1-249-421-11	CARBON 2.2K 5% 1/4W	
R204	1-249-430-11	CARBON 12K 5% 1/4W	
R205	1-249-429-11	CARBON 10K 5% 1/4W	
R206	1-247-838-00	CARBON 2K 5% 1/4W	
R207	1-249-421-11	CARBON 2.2K 5% 1/4W	
R208	1-247-842-11	CARBON 3K 5% 1/4W	
R209	1-249-423-11	CARBON 3.3K 5% 1/4W	
R210	1-249-428-11	CARBON 8.2K 5% 1/4W	
R211	1-247-864-11	CARBON 24K 5% 1/4W	
R212	1-249-414-11	CARBON 560 5% 1/4W	
R213	1-247-864-11	CARBON 24K 5% 1/4W	
R214	1-249-434-11	CARBON 27K 5% 1/4W	
R215	1-249-408-11	CARBON 180 5% 1/4W	
R216	1-249-421-11	CARBON 2.2K 5% 1/4W	
R217	1-249-429-11	CARBON 10K 5% 1/4W	
R218	1-249-417-11	CARBON 1K 5% 1/4W	
R219	1-247-887-00	CARBON 220K 5% 1/4W	
R221	1-249-433-11	CARBON 22K 5% 1/4W	
R222	1-249-429-11	CARBON 10K 5% 1/4W	
R224	1-215-455-00	METAL 27K 1% 1/6W	
R225	1-249-417-11	CARBON 1K 5% 1/4W	
R226	1-249-425-11	CARBON 4.7K 5% 1/4W	
R227	1-249-441-11	CARBON 100K 5% 1/4W	
R228	1-249-425-11	CARBON 4.7K 5% 1/4W	
R230	1-249-430-11	CARBON 12K 5% 1/4W	
R231	1-215-455-00	METAL 27K 1% 1/6W	
R232	1-249-429-11	CARBON 10K 5% 1/4W	
R233	1-249-417-11	CARBON 1K 5% 1/4W	
R234	1-249-441-11	CARBON 100K 5% 1/4W	
R235	1-249-441-11	CARBON 100K 5% 1/4W	
R237	1-249-417-11	CARBON 1K 5% 1/4W	
R238	1-249-417-11	CARBON 1K 5% 1/4W	
R239	1-249-437-11	CARBON 47K 5% 1/4W	
⚠R240	1-249-456-11	CARBON 5.6 5% 1/4W	F
R241	1-249-433-11	CARBON 22K 5% 1/4W	
R242	1-249-429-11	CARBON 10K 5% 1/4W	
R243	1-247-807-31	CARBON 100 5% 1/4W	
R244	1-247-807-31	CARBON 100 5% 1/4W	
R245	1-249-425-11	CARBON 4.7K 5% 1/4W	
R246	1-247-903-00	CARBON 1M 5% 1/4W	
R247	1-249-433-11	CARBON 22K 5% 1/4W	
R248	1-249-441-11	CARBON 100K 5% 1/4W	
R249	1-249-421-11	CARBON 2.2K 5% 1/4W	
R250	1-249-421-11	CARBON 2.2K 5% 1/4W	
R251	1-247-862-11	CARBON 20K 5% 1/4W	
R252	1-249-429-11	CARBON 10K 5% 1/4W	
R253	1-247-862-11	CARBON 20K 5% 1/4W	
R254	1-249-429-11	CARBON 10K 5% 1/4W	
R256	1-249-429-11	CARBON 10K 5% 1/4W	
R257	1-249-434-11	CARBON 27K 5% 1/4W	

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TC MAIN TC SW

Ref. No.	Part No.	Description	Remark
R258	1-249-429-11	CARBON 10K 5% 1/4W	
R259	1-249-429-11	CARBON 10K 5% 1/4W	
R260	1-249-434-11	CARBON 27K 5% 1/4W	
R261	1-249-421-11	CARBON 2.2K 5% 1/4W	
R262	1-249-429-11	CARBON 10K 5% 1/4W	
R263	1-249-421-11	CARBON 2.2K 5% 1/4W	
R264	1-249-429-11	CARBON 10K 5% 1/4W	
R265	1-249-422-11	CARBON 2.7K 5% 1/4W	
R266	1-249-422-11	CARBON 2.7K 5% 1/4W	
R267	1-249-422-11	CARBON 2.7K 5% 1/4W	
R268	1-249-429-11	CARBON 10K 5% 1/4W	
R269	1-249-417-11	CARBON 1K 5% 1/4W	
R270	1-249-427-11	CARBON 6.8K 5% 1/4W	
R272	1-249-418-11	CARBON 1.2K 5% 1/4W	
R273	1-249-421-11	CARBON 2.2K 5% 1/4W	
R274	1-249-421-11	CARBON 2.2K 5% 1/4W	
R275	1-249-430-11	CARBON 12K 5% 1/4W	
R276	1-249-433-11	CARBON 22K 5% 1/4W	
R277	1-249-381-11	CARBON 1 5% 1/4W	
R278	1-249-381-11	CARBON 1 5% 1/4W	
R280	1-249-433-11	CARBON 22K 5% 1/4W	
R281	1-249-433-11	CARBON 22K 5% 1/4W	
R282	1-247-807-31	CARBON 100 5% 1/4W	
R283	1-249-430-11	CARBON 12K 5% 1/4W	
R284	1-249-433-11	CARBON 22K 5% 1/4W	
R288	1-249-433-11	CARBON 22K 5% 1/4W	
R289	1-249-433-11	CARBON 22K 5% 1/4W	
R290	1-247-807-31	CARBON 100 5% 1/4W	
R291	1-249-381-11	CARBON 1 5% 1/4W	
R292	1-249-381-11	CARBON 1 5% 1/4W	
R293	1-249-381-11	CARBON 1 5% 1/4W	
R294	1-249-381-11	CARBON 1 5% 1/4W	
R301	1-249-429-11	CARBON 10K 5% 1/4W	
R303	1-249-421-11	CARBON 2.2K 5% 1/4W	
R304	1-249-430-11	CARBON 12K 5% 1/4W	
R305	1-249-429-11	CARBON 10K 5% 1/4W	
R306	1-247-838-00	CARBON 2K 5% 1/4W	
R307	1-249-421-11	CARBON 2.2K 5% 1/4W	
R308	1-247-842-11	CARBON 3K 5% 1/4W	
R309	1-249-423-11	CARBON 3.3K 5% 1/4W	
R310	1-249-428-11	CARBON 8.2K 5% 1/4W	
R311	1-247-864-11	CARBON 24K 5% 1/4W	
R312	1-249-414-11	CARBON 560 5% 1/4W	
R313	1-247-864-11	CARBON 24K 5% 1/4W	
R314	1-249-434-11	CARBON 27K 5% 1/4W	
R315	1-249-408-11	CARBON 180 5% 1/4W	
R316	1-249-421-11	CARBON 2.2K 5% 1/4W	
R317	1-249-429-11	CARBON 10K 5% 1/4W	
R318	1-249-417-11	CARBON 1K 5% 1/4W	

Ref. No.	Part No.	Description	Remark
R319	1-247-887-00	CARBON 220K 5% 1/4W	
		< VARIABLE RESISTOR >	
RV201	1-230-496-11	RES, ADJ, CARBON 10K (REC GAIN R-CH)	
RV301	1-230-496-11	RES, ADJ, CARBON 10K (REC GAIN L-CH)	
		< VIBRATOR >	
X201	1-577-358-21	VIBRATOR, CERAMIC (4MHz)	
***			
*	A-4371-418-A	TC SW BOARD, COMPLETE ********************	
*	3-377-337-11	HOLDER (FL)	
		< CONNECTOR >	
* CN302	1-568-824-11	SOCKET, CONNECTOR 5P	
* CN304	1-568-873-11	SOCKET, CONNECTOR 31P	
		< FLUORESCENT INDICATOR TUBE >	
FL301	1-519-712-11	INDICATOR TUBE, FLUORESCENT	
		< RESISTOR >	
R341	1-247-811-31	CARBON 150 5% 1/4W	
R342	1-249-409-11	CARBON 220 5% 1/4W	
R343	1-249-411-11	CARBON 330 5% 1/4W	
R344	1-249-413-11	CARBON 470 5% 1/4W	
R345	1-249-415-11	CARBON 680 5% 1/4W	
R346	1-249-417-11	CARBON 1K 5% 1/4W	
R347	1-249-420-11	CARBON 1.8K 5% 1/4W	
R348	1-249-424-11	CARBON 3.9K 5% 1/4W	
R349	1-247-811-31	CARBON 150 5% 1/4W	
R350	1-249-409-11	CARBON 220 5% 1/4W	
R351	1-249-411-11	CARBON 330 5% 1/4W	
R352	1-249-413-11	CARBON 470 5% 1/4W	
R353	1-249-415-11	CARBON 680 5% 1/4W	
R354	1-249-417-11	CARBON 1K 5% 1/4W	
R355	1-249-420-11	CARBON 1.8K 5% 1/4W	
R356	1-249-424-11	CARBON 3.9K 5% 1/4W	
R357	1-249-430-11	CARBON 12K 5% 1/4W	
R358	1-249-417-11	CARBON 1K 5% 1/4W	
		< VARIABLE RESISTOR >	
RV302	1-241-815-11	RES, VAR, CARBON 20K/20K (REC LEVEL)	
		< SWITCH >	
S301	1-554-303-21	SWITCH, TACTILE (■)	
S302	1-554-303-21	SWITCH, TACTILE (▷)	

Ref. No.	Part No.	Description	Remark
S303	1-554-303-21	SWITCH, TACTILE (◁)	
S304	1-554-303-21	SWITCH, TACTILE (◀◀)	
S305	1-554-303-21	SWITCH, TACTILE (▶▶)	
S306	1-554-303-21	SWITCH, TACTILE (REC)	
S307	1-554-303-21	SWITCH, TACTILE (HIGH SPEED DUBBING)	
S309	1-554-303-21	SWITCH, TACTILE (COUNTER RESET)	
S311	1-554-303-21	SWITCH, TACTILE (■)	
S312	1-554-303-21	SWITCH, TACTILE (PAUSE)	
S313	1-554-303-21	SWITCH, TACTILE (▷)	
S314	1-554-303-21	SWITCH, TACTILE (◁)	
S316	1-554-303-21	SWITCH, TACTILE (◀◀)	
S317	1-554-303-21	SWITCH, TACTILE (▶▶)	
S318	1-554-303-21	SWITCH, TACTILE (COUNTER RESET)	
S331	1-692-126-11	SWITCH, SLIDE (DIRECTION)	
S332	1-692-126-11	SWITCH, SLIDE (DOLBY NR)	

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Ref. No.	Part No.	Description	Remark
*	1-650-697-11	TUNER KEY BOARD	

****

< CONNECTOR >

Ref. No.	Part No.	Description	Remark
* CN462	1-569-799-11	PLUG, CONNECTOR 5P	(US, Canadian)
* CN462	1-569-798-11	PLUG, CONNECTOR 6P	(UK, E, G, MX, SP)

< DIODE >

Ref. No.	Part No.	Description	Remark
D504	8-719-313-69	LED SEL3210S-CD (STANDBY)	(UK, E, G, MX, SP)

< TRANSISTOR >

Ref. No.	Part No.	Description	Remark
Q504	8-729-900-63	TRANSISTOR DTA124ES	(UK, E, G, MX, SP)

< RESISTOR >

Ref. No.	Part No.	Description	Value	Tolerance	Rating	Remark
R460	1-247-807-31	CARBON	100	5%	1/4W	
R461	1-249-419-11	CARBON	1.5K	5%	1/4W	
R462	1-247-807-31	CARBON	100	5%	1/4W	
R491	1-249-419-11	CARBON	1.5K	5%	1/4W	
R534	1-249-415-11	CARBON	680	5%	1/4W	(UK, E, G, MX, SP)
R535	1-247-807-31	CARBON	100	5%	1/4W	(UK, E, G, MX, SP)

< SWITCH >

Ref. No.	Part No.	Description	Remark
S462	1-554-303-21	SWITCH, TACTILE (MEMORY SCAN)	
S463	1-554-303-21	SWITCH, TACTILE (MEMORY)	
S491	1-554-303-21	SWITCH, TACTILE (SYSTEM POWER)	

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Ref. No.	Part No.	Description	Remark
*	1-650-639-11	VIDEO BOARD	

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< CAPACITOR >

Ref. No.	Part No.	Description	Value	Tolerance	Rating
C827	1-124-927-11	ELECT	4.7uF	20%	100V
C828	1-124-927-11	ELECT	4.7uF	20%	100V
C848	1-124-477-11	ELECT	47uF	20%	25V
C849	1-124-472-00	ELECT	470uF	20%	6.3V
C850	1-124-472-00	ELECT	470uF	20%	6.3V

< CONNECTOR >

Ref. No.	Part No.	Description	Remark
* CN708	1-568-824-11	SOCKET, CONNECTOR 5P	

< IC >

Ref. No.	Part No.	Description	Remark
IC800	8-759-061-95	IC SN761200	

< JACK >

Ref. No.	Part No.	Description	Remark
J703	1-764-404-11	JACK, PIN 4P (VIDEO IN/OUT)	

< COIL >

Ref. No.	Part No.	Description	Value
L800	1-410-521-11	INDUCTOR	100uH

< TRANSISTOR >

Ref. No.	Part No.	Description	Remark
Q800	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q801	8-729-119-76	TRANSISTOR 2SA1175-HFE	

< RESISTOR >

Ref. No.	Part No.	Description	Value	Tolerance	Rating
R816	1-247-804-11	CARBON	75	5%	1/4W
R817	1-247-804-11	CARBON	75	5%	1/4W
R818	1-247-804-11	CARBON	75	5%	1/4W
R819	1-247-804-11	CARBON	75	5%	1/4W
R820	1-249-429-11	CARBON	10K	5%	1/4W
R821	1-249-429-11	CARBON	10K	5%	1/4W
R822	1-247-807-31	CARBON	100	5%	1/4W
R823	1-247-807-31	CARBON	100	5%	1/4W
R845	1-247-807-31	CARBON	100	5%	1/4W
R846	1-247-807-31	CARBON	100	5%	1/4W

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Ref. No.	Part No.	Description	Remark
*	A-4377-042-A	VOLUME BOARD, COMPLETE	(UK, G)

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Ref. No.	Part No.	Description	Remark
*	1-650-698-11	VOLUME BOARD	(US, Canadian, E, MX, SP)

****

< CAPACITOR >

Ref. No.	Part No.	Description	Value	Tolerance	Rating
C707	1-136-165-00	FILM	0.1uF	5%	50V
C734	1-136-165-00	FILM	0.1uF	5%	50V
C741	1-124-903-11	ELECT	1uF	20%	50V
C757	1-136-165-00	FILM	0.1uF	5%	50V

VOLUME

Ref. No.	Part No.	Description	Remark
C784	1-136-165-00	FILM 0.1uF 5% 50V	
C791	1-124-903-11	ELECT 1uF 20% 50V	
C810	1-124-907-11	ELECT 10uF 20% 50V	
C815	1-124-903-11	ELECT 1uF 20% 50V	
C821	1-124-477-11	ELECT 47uF 20% 25V	
C836	1-124-907-11	ELECT 10uF 20% 50V	
C837	1-124-903-11	ELECT 1uF 20% 50V	
C860	1-124-907-11	ELECT 10uF 20% 50V	
C865	1-124-443-00	ELECT 100uF 20% 10V	
C866	1-124-443-00	ELECT 100uF 20% 10V	
C867	1-162-282-31	CERAMIC 100PF 10% 50V	(US, Canadian, E, MX, SP)
C867	1-162-207-31	CERAMIC 22PF 5% 50V	(UK, G)
C868	1-162-282-31	CERAMIC 100PF 10% 50V	(US, Canadian, E, MX, SP)
C868	1-162-207-31	CERAMIC 22PF 5% 50V	(UK, G)
C869	1-162-282-31	CERAMIC 100PF 10% 50V	(US, Canadian, E, MX, SP)
C869	1-162-207-31	CERAMIC 22PF 5% 50V	(UK, G)
C870	1-162-282-31	CERAMIC 100PF 10% 50V	(US, Canadian, E, MX, SP)
C870	1-162-207-31	CERAMIC 22PF 5% 50V	(UK, G)
C886	1-124-907-11	ELECT 10uF 20% 50V	
C887	1-124-903-11	ELECT 1uF 20% 50V	

< CONNECTOR >

Ref. No.	Part No.	Description	Remark
CN710	1-564-506-11	PLUG, CONNECTOR 3P	
* CN755	1-568-834-11	SOCKET, CONNECTOR 15P	

< IC >

Ref. No.	Part No.	Description	Remark
IC710	8-759-820-62	IC LB1639	
IC715	8-759-634-50	IC M5218AL	
IC716	8-759-634-50	IC M5218AL	

< TRANSISTOR >

Ref. No.	Part No.	Description	Remark
Q711	8-729-900-36	TRANSISTOR DTC124ES	
Q712	8-729-900-36	TRANSISTOR DTC124ES	
Q713	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q762	8-729-900-36	TRANSISTOR DTC124ES	
Q763	8-729-141-30	TRANSISTOR 2SC3623A-LK	

< RESISTOR >

Ref. No.	Part No.	Description	Remark
R748	1-249-394-11	CARBON 12 5% 1/6W	
R803	1-249-438-11	CARBON 56K 5% 1/4W	
R804	1-247-883-00	CARBON 150K 5% 1/4W	(US, Canadian, E, MX, SP)
R804	1-249-440-11	CARBON 82K 5% 1/4W	(UK, G)
R807	1-249-432-11	CARBON 18K 5% 1/4W	
R810	1-247-899-11	CARBON 680K 5% 1/4W	
R811	1-249-416-11	CARBON 820 5% 1/4W	
R825	1-249-441-11	CARBON 100K 5% 1/4W	
R826	1-249-411-11	CARBON 330 5% 1/4W	
R837	1-249-441-11	CARBON 100K 5% 1/4W	
R838	1-249-417-11	CARBON 1K 5% 1/4W	
R851	1-249-429-11	CARBON 10K 5% 1/4W	
R853	1-249-438-11	CARBON 56K 5% 1/4W	
R854	1-247-883-00	CARBON 150K 5% 1/4W	(US, Canadian, E, MX, SP)
R854	1-249-440-11	CARBON 82K 5% 1/4W	(UK, G)
R857	1-249-432-11	CARBON 18K 5% 1/4W	
R860	1-247-899-11	CARBON 680K 5% 1/4W	
R861	1-249-416-11	CARBON 820 5% 1/4W	
R869	1-249-431-11	CARBON 15K 5% 1/4W	
R870	1-249-431-11	CARBON 15K 5% 1/4W	
R875	1-249-441-11	CARBON 100K 5% 1/4W	
R876	1-249-417-11	CARBON 1K 5% 1/4W	
R877	1-249-417-11	CARBON 1K 5% 1/4W	
R887	1-249-441-11	CARBON 100K 5% 1/4W	
R888	1-249-417-11	CARBON 1K 5% 1/4W	
R891	1-249-417-11	CARBON 1K 5% 1/4W	
R892	1-249-417-11	CARBON 1K 5% 1/4W	

< VARIABLE RESISTOR >

Ref. No.	Part No.	Description	Remark
RV701	1-241-816-11	RES, VAR, CARBON 100KX4 (VOLUME)	

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MISCELLANEOUS

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Ref. No.	Part No.	Description	Remark
4	1-575-906-11	WIRE, FLAT TYPE (15 CORE)	
5	1-696-930-11	WIRE (FLAT TYPE) (17 CORE)	
6	1-765-165-11	WIRE (FLAT TYPE) (35 CORE)	
7	1-765-162-11	CORD, CONNECTION (15 CORE)	
8	1-575-662-11	WIRE, FLAT TYPE (5 CORE)	
67	1-575-906-11	WIRE, FLAT TYPE (15 CORE)	
68	1-765-165-11	WIRE (FLAT TYPE) (35 CORE)	
71	1-696-456-11	WIRE (FLAT TYPE) (31 CORE)	
72	1-696-981-11	WIRE (FLAT TYPE) (5 CORE)	
75	1-765-243-11	WIRE (FLAT TYPE) (35 CORE)	
* 114	1-590-769-11	WIRE, FLAT TYPE (7 CORE)	
165	1-590-849-11	WIRE, FLAT TYPE (5 CORE)	
178	1-537-645-11	JUMPER, FILM (WITH TERMINAL)	
183	1-765-162-11	CORD, CONNECTION (15 CORE)	
216	1-638-983-11	PC BOARD, MOTOR FLEXIBLE	
⚠301	8-848-144-11	DEVICE, OPTICAL KSS-240A	
302	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
HP1	A-2003-757-A	BASE ASSY, HEAD (DECK A)	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
HRP2	A-2003-930-A	BASE ASSY, HEAD (DECK B)	
M1(A)	X-3363-501-1	MOTOR ASSY (REEL) (DECK A)	
M1(B)	X-3363-501-1	MOTOR ASSY (REEL) (DECK B)	
M2(A)	X-3365-377-1	MOTOR ASSY (CAPSTAN) (DECK A)	
M2(B)	X-3365-377-1	MOTOR ASSY (CAPSTAN) (DECK B)	
M101	X-4917-523-4	BASE (OUTSERT) ASSY (SPINDOLE MOTOR)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	
M701	A-4604-849-A	MOTOR ASSY, ROTARY	
M702	A-4604-847-A	MOTOR ASSY, LOADING	
S701	1-572-713-11	SWITCH, PUSH (WITH CONNECTOR)	

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ACCESSORIES & PACKING MATERIALS

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Ref. No.	Part No.	Description	Remark
	1-501-536-11	ANTENNA (UK, G)	
	1-501-659-11	ANTENNA (FM) (US)	
	1-467-588-11	REMOTE COMMANDER (RM-U541)	
	1-501-374-11	ANTENNA, LOOP (US, UK, G)	
	1-558-271-11	CORD, CONNECTION (US, UK, G)	
	1-765-120-11	CORD, CONNECTION (US, UK, G)	
	1-765-121-11	CORD (WITH CONNECTOR) (US, UK, G)	
	3-707-584-31	LID, BATTERY CASE	
	3-759-870-21	MANUAL, INSTRUCTION (ENGLISH) (US)	
	3-759-870-41	MANUAL, INSTRUCTION (ENGLISH/FRENCH/DUTCH) (AEP, UK, G)	
	3-759-870-51	MANUAL, INSTRUCTION (GERMAN/SPANISH/FINNISH/SWEDISH) (AEP, UK)	
	4-937-945-01	PLATE (TRANSPORT), LOCK	
*	4-971-783-01	INDIVIDUAL CARTON (US, UK)	
*	4-971-784-01	INDIVIDUAL CARTON (G)	
	4-973-791-01	CUSHION (FRONT) (US, UK, G)	
	4-973-792-01	CUSHION (REAR) (US, UK, G)	

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HARDWARE LIST

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Ref. No.	Part No.	Description	Remark
#1	7-685-646-79	SCREW +BVTP 3×8 TYPE2 N-S	
#2	7-685-647-79	SCREW +BVTP 3×10 TYPE2 N-S	
#3	7-621-773-95	SCREW +BVTT 2.6×6 (S)	
#4	7-621-255-15	SCREW +P 2×3	
#5	7-682-554-04	SCREW +B 3×25	
#6	7-682-961-01	SCREW +PSW 4×8	
#7	7-685-136-19	SCREW +P 2.6×12 TYPE2 NON-SLIT	
#8	7-621-775-00	SCREW +B 2.6×3	
#9	7-627-556-08	SCREW +P 2.6×2.8	